APPLIED LABORATORY SERVICES

ASBESTOS ABATEMENT SPECIFICATION

CITY OF PORTSMOUTH CIVIC CENTER COMPLEX PORTSMOUTH, VIRGINIA

Prepared For:
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Department of Engineering
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Date

CIVIC CENTER COMPLEX
PORTSMOUTH VIRGINIA

Asbestos Abatement

Part I – General

1.1 SCOPE OF WORK

The abatement contractor shall furnish all labor, equipment and supplies required for the proper removal, handling, and disposal of Friable and Non-friable Asbestos Containing Materials associated with the following Buildings:

- "former" General District Court Building
- "former" Circuit Court Building
- "former" Juvenile & Domestic Court Building/Magistrates Office/Police Operations
- The Jail Building
- Sherriff Parking Garage
- Police Parking Garage

Asbestos materials include spray applied structural fireproofing, asbestos contaminated materials above ceilings, asbestos containing and contaminated HVAC duct insulation, asbestos containing and contaminated thermal system insulation (TSI) piping and fittings, reflective heat shields, fire doors, thermal insulations, all asbestos contaminated debris to include surfaces, furniture, contents, areas within wall cavities and asbestos contaminated demolition debris resulting from interior wall demolition.

Fireproofing has been applied to structural I-beams, perimeter structural I-beams and above suspended wire mesh ceiling system located above the finished ceiling system in the General District and Circuit Court Buildings. The wire mesh ceiling system is installed approximately 12" below the main structural concrete roof decking on both the first and second floor levels of each building. Fireproofing overspray from the original material application is expected to exist on the concrete roof decking on both floors. Fireproofing ranges from ½-2 inches in thickness. Fireproofing has been over spray applied to most materials and equipment existing above the ceilings, fireproofing has significantly delaminated and is lying on the top of ceiling tiles, plaster ceilings, light fixtures, and mechanical equipment. Some ceiling areas have collapsed and has caused significant contamination below ceiling areas within the General and Circuit Court Buildings. Fireproofing shall be abated within a Full Negative Pressure Containment. Containment shall be established and maintained for the abatement of asbestos containing fireproofing. Asbestos containing fireproofing shall be removed utilizing hand tools only. No mechanical tools shall be permitted.

Prior to beginning asbestos abatement operations, an asbestos control area shall be established through the use of sealed critical barriers, curtains, portable partitions, or other enclosures to prevent the escape of asbestos fibers from the control area. Openings will be allowed in the asbestos control enclosure to allow the supply and exhaust of air for the differential pressure control system. Two layers of 6-mil plastic sheeting shall be placed over perimeter walls and

permanent bathroom fixtures and/or furnishings, sealed with spray glue and/or duct tape. Floors shall be covered with a 6-mil poly drop cloth. All critical barriers shall also be sealed with two layers of 6-mil plastic sheeting to include but not limited to stairwell doorways, elevators (note: plywood additionally required on elevators), windows, ventilation ducts and diffuser openings, floor, ceiling and wall penetrations. Once the containment has been established it shall be smoke tested (by contractor's onsite supervisor) and a digital manometer with printable capabilities fixed in place to ensure that -0.02 inches of water column is maintained at all time. Negative pressure shall be operational twenty-four hours a day. Backup generator may be necessary. **Generators shall not be placed or allowed to operate within the interior of the building.** Abatement Contractor shall affix asbestos warning signs at all approaches to the contained work area. Asbestos materials shall remain adequately wet during abatement and fine cleaning procedures. Gross waste shall not be permitted to accumulate within the work area.

Non-friable Asbestos Containing materials include floor tiles, associated mastics, mastic sealants, door caulking, window glazing, carpeting and transite decorative trims. Contractor shall remove and dispose of general demolition debris as indicated within this specification to include but not limited to CMU walls, gypsum walls below ceilings, carpeting, ceramic tiles, remnant furniture, cabinetry, supplies, and equipment.

1.2 ASBESTOS-RELATED WORK

A. Demolition, removal, and disposal of Friable and Non-Friable Asbestos Containing and Asbestos Contaminated Materials in support of future demolition activities. Work shall include the complete removal of all interior and exterior asbestos containing building materials prior to demolition. Work includes the removal of the following materials:

General District Court Building, 1st Floor

MATERIAL	LOCATION	Friability	%, Type Asbestos, Condition	Estimated Quantity	REMOVAL REQUIREMENT
HVAC duct seam mastic	Overhead areas (various diameter)	Non-friable	5% Chrysotile, good condition (ducts are contaminated with friable fireproofing)	6,280sf	Negative Pressure Enclosure
Fireproofing	Overhead ceilings, structural I-beams, widespread overspray. (with exception of courtroom)	Friable	10%-15% Chrysotile, significant damage	18,224sf	Negative Pressure Enclosure
2" mudded pipe fitting	Overhead and in pipe chases associated with hot and cold water	Friable	25% Chrysotile, good condition	Approx. 36 fittings	Negative Pressure Enclosure
12"x12" floor tile and associated mastic	Hallways, courtroom, offices and storage areas (throughout). Some located under carpeting, two layers identified in lounge	Non-friable	2%-5% Chrysotile, good condition	11,928sf	Negative Pressure Enclosure

General District Court Building, 1st Floor (Continued)

Decorative black cementitious trim	Top of benches and counters in courtroom	Non-friable	20% Chrysotile, good condition	35sf	Regulated Work Area
Insulated fire doors	Entrance to stairwells	Friable	Assumed	(6 doors) 192sf total	Regulated Work Area
Reflective light heat shield	IT room adjacent courtroom	Friable	Assumed	(1) 1sf total	Regulated Work Area
1'x1' ceiling tiles	Main hall	Friable	Significantly contaminated with asbestos fireproofing	620sf	Negative Pressure Enclosure
2'x2' ceiling tiles	Throughout (with exception of courtroom)	Friable	Significantly contaminated with asbestos fireproofing	11,398sf	Negative Pressure Enclosure
Pipe Insulation	Overhead and in pipe chases associated with hot & cold water	Friable	Significantly contaminated with asbestos fireproofing	Approx. 420lf	Negative Pressure Enclosure
Smooth plaster ceilings	Restrooms and storage areas	Friable	Significantly contaminated with asbestos fireproofing	680sf	Negative Pressure Enclosure
CMU block walls	Interior walls, throughout	Friable	Interior cavities significantly contaminated with asbestos fireproofing	5,890sf	Negative Pressure Enclosure
Framed drywall	Interior walls, throughout	Friable	Interior cavities significantly contaminated with asbestos fireproofing	11,890sf	Negative Pressure Enclosure

General District Court Building, 2nd Floor

MATERIAL	LOCATION	Friability	%, Type Asbestos, Condition	Estimated Quantity	REMOVAL REQUIREMENT
Fireproofing	2nd floor (throughout) above drop ceilings and within wall cavities (One Court room was previously abated)	Friable	10%-15% Chrysotile, significant damage	10,143sf (2"-4" in thickness)	Negative Pressure Enclosure
Ceiling Tiles (various sizes)	2nd floor (throughout)	Friable	significantly contaminated with asbestos fireproofing	18,500 sf	Negative Pressure Enclosure
TSI/Mudded Fittings ½"- 2"	2nd floor (above drop ceilings and within wall cavities)	Friable	25% Chrysotile, good condition	80 fittings	Negative Pressure Enclosure
Smooth Plaster Ceilings	Restrooms and various office spaces	Friable	significantly contaminated with asbestos fireproofing	1,230 sf	Negative Pressure Enclosure
Asbestos Contaminated Fiberglass Insulated HVAC	2nd floor (above drop ceilings)	Friable	significantly contaminated with asbestos fireproofing	1,600 sf	Negative Pressure Enclosure

General District Court Building, 2nd Floor (continued)

Floor tiles (various sizes and colors) and associated mastic	2nd floor (throughout)	Non-friable	good	18,800 sf	Negative Pressure Enclosure
Carpeting (glued)	various office spaces	Non-friable	good	2,000 sf	Negative Pressure Enclosure
Asbestos contaminated Interior walls (drywall)	throughout	Friable	Good (interior cavities are assumed asbestos fireproofing contaminated)	16,800 sf	Negative Pressure Enclosure
CMU walls	throughout	Friable	Good (interior cavities are assumed asbestos fireproofing contaminated)	12,000 sf	Negative Pressure Enclosure
Fire Doors (wood)	throughout	Friable	Good (interior insulation within wood doors has been assumed to contain asbestos.	12 doors (384sf total)	Negative Pressure Enclosure

Circuit Court Building, 1st and 2nd Floors

MATERIAL	LOCATION	Friability	%, Type Asbestos, Condition	Quantity	REMOVAL REQUIREMENT
1"-4" O.D. mudded pipe fitting	Overhead and in pipe chases associated with hot and cold water	Friable	10%-20% Chrysotile, good condition	Approx. 98 fittings	Negative Pressure Enclosure
Fireproofing	Overhead ceilings, structural I-beams, widespread overspray.	Friable	15%-20% Chrysotile, significant damage	55,548sf	Negative Pressure Enclosure
12"x12" floor tile and associated mastic	Hallways, courtrooms, offices and storage areas (throughout). Some located under carpeting,	Non-friable	2%-5% Chrysotile, good condition	34,321sf	Negative Pressure Enclosure
Round and rectangular HVAC duct seam mastic	Overhead areas (various diameter)	Non-friable	5%-8% Chrysotile, good condition (ducts are contaminated with friable fireproofing)	21,078sf	Negative Pressure Enclosure
Reflective light heat shield	Storage rooms	Friable	25% Chrysotile, good condition	(4) 4sf total	Regulated Work Area
Decorative black cementitious trim	Top of benches and counters in courtrooms	Non-friable	20% Chrysotile, good condition	450sf	Regulated Work Area

Circuit Court Building, 1st and 2nd Floors (Continued)

MATERIAL	LOCATION	Friability	%, Type Asbestos, Condition	Quantity	REMOVAL REQUIREMENT
Insulation board	Interior vault door	Friable	80% Chrysotile, good condition	18sf	Negative Pressure Enclosure
Fire door insulation	Entrance to stairwells	Friable	25% Chrysotile, 5% Amosite, good condition	(9 doors) 288sf total	Regulated Work Area
1'x1' ceiling tiles (smooth and textured)	Hallways and courtrooms	Friable	Significantly contaminated with asbestos fireproofing	15,023sf	Negative Pressure Enclosure
2'x2' ceiling tiles	Throughout	Friable	Significantly contaminated with asbestos fireproofing	23,860sf	Negative Pressure Enclosure
Pipe Insulation	Overhead and in pipe chases associated with hot & cold water	Friable	Significantly contaminated with asbestos fireproofing	1,420lf	Negative Pressure Enclosure
Smooth plaster ceilings	Restrooms and storage areas	Friable	Significantly contaminated with asbestos fireproofing	1,452sf	Negative Pressure Enclosure
CMU block walls	Interior walls, throughout	Friable	Interior cavities significantly contaminated with asbestos fireproofing	19,904sf	Negative Pressure Enclosure
Framed drywall	Interior walls, throughout	Friable	Interior cavities significantly contaminated with asbestos fireproofing	26,930sf	Negative Pressure Enclosure
Wood panel ceiling	Foyer	Friable	Significantly contaminated with asbestos fireproofing	253sf	Negative Pressure Enclosure
Perimeter flashing and Parapet Wall	Roof perimeter tar and felt	Non-friable	5%-40% Chrysotile, good condition	1,392sf	Regulated Work Area
Vent flashing	Roof Mechanical equipment tar and felt	Non-friable	10% and 20% Chrysotile, good condition	120lf	Regulated Work Area
Perimeter flashing	Penthouse perimeter, tar and felt	Non-friable	10% and 20% Chrysotile, good condition	156sf	Regulated Work Area
Base flash caulk (white)	Penthouse perimeter base	Non-friable	2% Chrysotile, good condition	238lf	Regulated Work Area
Expansion joint	Roof expansion, tar and felt	Non-friable	10%, 25% and 40% Chrysotile, good condition	134lf	Regulated Work Area
Flashing	Roof hatch, tar paper	Non-friable	40% Chrysotile, good condition	14lf	Regulated Work Area

Sheriff/Police Garages/P&E

MATERIAL	LOCATION	Friability	%, Type Asbestos, Condition	Quantity	REMOVAL REQUIREMENT
Mastic associated with 12"x12" Tan with Gray Speck Floor Tile	Police Garage Vehicle Maintenance Coordinator Office, P&E Office	Non-friable	2%-5% Chrysotile, Good	350 SF	Regulated Work Area/Glove Bag
7" OD Mudded Elbow	Police Garage	Friable	15% Chrysotile	1 Count	Regulated Work Area/Glove Bag
4" OD Mudded Elbow	Police Garage	Friable	25% Chrysotile	4 Count	Regulated Work Area/Glove Bag
12"x12" Black Floor Tile and associated mastic	Hall, 911 Call Center Area	Non-friable	3%-5% Chrysotile, Good	4,000 SF	Regulated Work Area
12"x12" Gray Floor Tile and associated mastic (Elevated Computer Floor)	Homicide Storage Room, Adjacent Room (Within 911 Call Center Area)	Non-friable	3%-5% Chrysotile, Good	1,200 SF	Regulated Work Area
3" OD Mudded Elbow	Sheriff's Garage Area	Friable	10% Chrysotile, Good	10 Count	Regulated Work Area/Glove Bag
5" OD Mudded Elbow	Sheriff's Garage Area, Back Fenced Area within Sheriff's Garage Area	Friable	10%-40% Chrysotile, Good	18 Count	Regulated Work Area/Glove Bag
7" OD Mudded Elbow	Sheriff's Garage Area	Friable	15% Chrysotile, Good	2 Count	Regulated Work Area/Glove Bag
5" OD Pipe Elbow Tar	Entrance to 911 Call Center Area	Non-friable	8% Chrysotile	2 SF	Regulated Work Area/Glove Bag
Door Caulk	Sheriff's Garage at Elevator Equipment Room, Sheriff's Garage at North Stairwell	Non-friable	2%-3% Chrysotile, Good	100 LF	Regulated Work Area

Jail Building

MATERIAL	LOCATION	Friability	%, Type Asbestos, Condition	Quantity	REMOVAL REQUIREMENT
12"x12" Black Floor Tile and associated mastic	3rd Floor Elevator Landing, 4th Floor North Stairwell, 5th Floor Elevator Landing, 6th Floor Rear Elevator Landing, 7th Floor Rear Elevator Landing	Non-friable	2%-5% Chrysotile, Good	4,000 SF	Regulated Work Area
Mastic associated with 12"x12" Gray with White Speck Floor Tile	3rd Floor Deputy Office, 4th Floor Deputy Office, 7th Floor Deputy Office	Non-friable	2%-3% Chrysotile, Good	220 SF	Regulated Work Area

Jail Building (continued)

12"x12" White with Gray Speck Floor Tile and associated mastic	3rd Floor Deputy Office Restroom, 4th Floor Deputy Office, 5th Floor Deputy Office Restroom, 6th Floor Deputy Office Restroom	Non-friable	3%-5% Chrysotile, Good	300 SF	Regulated Work Area
2" OD Mudded Elbow	3rd Floor Side Chase, 4th Floor Side Chase, 5th Floor Side Chase, 7th Floor Side Chase	Friable	10%-20% Chrysotile, Good	45 Count	Regulated Work Area/Glove Bag
3" OD Mudded Elbow	5th Floor Elevator Landing, 6th Floor Elevator Landing, 7th Floor Elevator Landing,	Friable	10% Chrysotile, Good	14 Count	Regulated Work Area/Glove Bag
Mastic associated with 12"x12" Blue Floor Tile	7th Floor Deputy Office Restroom	Non-friable	2% Chrysotile, Good	50 SF	Regulated Work Area
Exterior Window Glazing	Exterior Jail Window	Non-friable	2% Chrysotile, Good	725 LF	Regulated Work Area
Mastic associated with 12"x12" Blue Floor Tile	Sheriff's Office Men's Restroom	Friable	2% Chrysotile, Good	80 SF	Regulated Work Area
Mastic associated with 12"x12" Brown with White Speck	2nd Floor Medical Foyer	Friable	2% Chrysotile, Good	1,000 SF	Regulated Work Area
5" OD Mudded Elbow	2nd Floor Medical Office	Friable	15% Chrysotile, Good	3 Count	Regulated Work Area/Glove Bag
Flashing Adhesive	Portsmouth City Jail Roof	Friable	2% Chrysotile, Good	1,100 SF	Regulated Work Area
Window Glazing	Exterior, Portsmouth City Jail	Non-Friable	2% Chrysotile, Good	750 LF	Regulated Work Area

J&D Court Building/Magistrates/Police Ops

MATERIAL	LOCATION	Friability	%, Type Asbestos, Condition	Quantity	REMOVAL REQUIREMENT
Fireproofing	Assumed to be in perimeter wall cavities 1st and 2nd floor based on previous reports	Friable	10%-15% Chrystotile	10,000SF	Negative Pressure Enclosure
Door Caulk	Former J&D Building 2nd Floor,	Non-friable	3% Chrysotile, Good	100 LF	Regulated Work Area
Exterior Window Glazing	Exterior Former J&D Window	Non-friable	2% Chrysotile, Good	850 LF	Regulated Work Area
12"x12" Black Floor Tile and associated mastic	Uniform Patrol Property & Evidence Submission Room Closet	Non-Friable	3% Chrysotile, Good	300 SF	Regulated Work Area
Mastic associated with 12"x12" White Floor Tile	Uniform Patrol Side Hall	Non-friable	3% Chrysotile, Good	300 SF	Regulated Work Area

1.3 WORK CONDITIONS

A. All work shall be conducted in accordance with this specification and all applicable Federal, State, and Local Regulations. Contractor shall take all precautionary measures to ensure that all non-abatement areas are completed segregated and kept from being asbestos contaminated and any building occupants are kept from risk of asbestos exposure from work conducted.

B. Contractor agrees to guarantee and hold harmless The City of Portsmouth, their agents and employees, against any and all claims arising from any infringement or alleged infringement by Contractor, or Contractor's agents, employees or subcontractors, of any rights secured under copyright, trademark, or patent protection. In that regard, Contractor hereby represents, on behalf of itself, its agents, employees and/or subcontractors, that all necessary licenses for the time of execution of this contract, shall remain in full force and effect at the time of execution of this contract, and shall remain in full force and effect during the term of this contract and any extension thereof.

C. The performance of work shall be monitored by a representative and/or representatives appointed by The City of Portsmouth, to ensure full compliance with the specifications and all applicable regulations. The City of Portsmouth will bear costs in connection with laboratory and inspection work required for initial consulting, oversight, monitoring, inspections and final clearances as outlined in this specification, The cost of Contractor delays, subsequent visual inspections and laboratory analysis for personal and area samples taken because the limits specified were exceeded in the initial tests shall be borne by the contractor.

D. The City of Portsmouth and/or their appointed representative reserve the right to halt the project until hazardous or potentially hazardous conditions are corrected. It will be the responsibility of the Contractor to pay for consultant services and costs incurred to correct any non-compliance. The City of Portsmouth and/or their appointed representative must approve all work and work practices prior to the commencement of work. **No work shall be performed without the City's third party asbestos project monitor onsite.**

E. Contractor is responsible for verifying all quantities of asbestos containing and/or asbestos contaminated materials to be removed prior to submitting bid prices. Contractor shall provide in their bid the estimated number of days required for conducting all work listed within this specification. All waste, debris, and scrap materials mixed with asbestos contamination, unless otherwise noted, shall be considered asbestos containing or asbestos contaminated and disposed appropriately. No recycling of materials containing asbestos contamination will be permitted, to include but not limited to ceiling grid, light fixtures, CMU block walls, piping or any other building materials resulting from the removal and or demolition of materials from this project. Materials and Structures not contaminated with Asbestos may be disposed in accordance with permissible regulations.

1.4 CODES, PERMITS, AND STANDARDS

A. The Contractor shall be solely responsible for compliance with all applicable federal, state, and local laws, ordinances, codes, rules, and regulations. All work installed shall comply with all applicable codes and regulations as amended. Before starting the work, the Contractor shall examine the Specifications and Design Plans for compliance with codes and regulations applicable to the work and shall immediately report any discrepancy to the Owner's Designated Representative.

1. Federal and State Regulations, Codes, and Standards: Standards which govern asbestos abatement work or hauling and disposal of asbestos waste material are included in the Specification by reference. The current issue of each document shall govern. Where conflict among requirements or with these Design Plans and Specifications exists, the more stringent requirements shall apply. The Contractor shall be familiar with the following regulations governing the work:

   a. Title 29, Code of Federal Regulations, U.S. Department Of Labor, Occupational Safety and Health Administration (OSHA) Standards.

      - Part 1910.20: Access to Employee Exposure and Medical Records
      - Part 1910.134: Respiratory Protection
      - Part 1910.1200: Hazard Communication
      - Part 1926.1101: Construction Industry

   b. Title 40, Code Of Federal Regulations, U.S. Environmental Protection Agency (EPA) Standards.

      - Part 61, Subpart A: National Emissions Standard for Hazardous Air Pollutants - General Provisions
      - Part 61, Subpart M: National Emission Standards for Hazardous Air Pollutants - National Emission Standard for Asbestos
      - Part 763: Asbestos-Containing Materials in Schools

   c. Title 49, Code Of Federal Regulations, U.S. Department Of Transportation (DOT) Standards.

      - Part 171 - Hazardous Substances
      - Part 172, Subparts B & C - Hazardous Materials Tables and Hazardous Materials Communications Regulations
      - Part 173, Subpart M - Shippers - General Requirements for Shipments and Packaging

2. Manufacturer's Standards: The following Manufacturer's Standards shall apply, as referenced:
   a. American National Standards Institute (ANSI) Publications:

      - Z9.2-79: Fundamentals Governing the Design and Operation of Local Exhaust Systems

- Z88.2-80: Practice for Respiratory Protection
- Z86.1-1973: Commodity Specification for Air.

b. Underwriters Laboratories Inc. (UL) Publication.

- 586-77: Test Performance of High Efficiency Particulate Air Filter Units
- 586-85: Standard for High-Efficiency Particulate Air Filter Units
- 467: Grounding and Bonding Equipment

c. American Society For Testing And Materials (ASTM) Publication:

- D1331-56: Surface and Interfacial Tension of Solutions of Surface-Active Agents

d. National Fire Protection Association (NFPA) Publication.

- 70-1988: National Electrical Code (NEC)

1.5 PERMITS, STATE LICENSES, AND NOTIFICATIONS

The Contractor shall be responsible for obtaining necessary permits, state licenses, and certifications of personnel in conjunction with asbestos removal, hauling, and disposition and shall provide timely notification of such actions as may be required by federal, state, regional, and local authorities. Fees and/or charges for these licenses and permits shall be paid by the Contractor.

A. Contractor shall be required to submit required asbestos notification. Written notification shall be made in accordance with EPA Standard Title 40 CFR, Part 61, Subpart M to: DEPARTMENT OF LABOR AND INDUSTRY, ATTN.: ASBESTOS CONTROL CLERK, POWERS-TAYLOR BUILDING, 13 NORTH 13TH STREET, RICHMOND, VIRGINIA 23219; FAX NO.: (804) 371-7634. Provide written notice to applicable agencies if the start date stated on the notification form changes.

B. Upon completion of the asbestos removal/demolition construction, submit notification of project completion to the Administrator, and to other agencies requiring notification under Paragraph 1.2.3.1.

1.6 TERMINOLOGY

The following commonly-used terms are defined in the context of these Design Plans and Specifications:

A. Abatement: Procedures to control or decrease fiber release from asbestos-containing building materials or insulation material containing asbestos. Includes removal, enclosure, and encapsulation.
B. Asbestos-Containing Material (ACM): Any material or product which contains more than 1 percent asbestos.
C. Aggressive Sampling: Air monitoring samples collected while a leaf blower, fans, or other such devices are used to generate air turbulence within the work area.
D. Air Filtration Device (AFD): A portable local exhaust system equipped with HEPA filtration, capable of maintaining a constant low velocity air flow into contaminated areas from adjacent, uncontaminated areas and capable of maintaining a negative air pressure with respect to the adjacent, uncontaminated areas.
E. Air Lock: A system for permitting ingress or egress to the work area while permitting minimal air movement between a contaminated area and an uncontaminated area, typically consisting of two curtained doorways placed a minimum of three feet apart.
F. Air Monitoring: The process of measuring the fiber content of a specific volume of air in a stated period of time. Personal air sampling results shall be calculated to reflect the employee's eight-hour time weighted average (TWA) exposure. Area sampling results are reported directly, without calculating the TWA.
G. Amended Water: Water to which a surfactant has been added.
H. Asbestos Removal Encapsulant: A chemical solution used in place of amended water during asbestos removal to penetrate, bind, and encapsulate the asbestos-containing material.
I. Authorized Visitor: Owner's Designated Representative, or representatives of any regulatory or other agency having jurisdiction over the project.
J. Competent Person: Definition and responsibilities as set down in 29 CFR 1926.1101 and as outlined herein.
K. Curtained Doorway: A device to allow ingress or egress from one room to another while permitting minimal air movement between the rooms.
L. Decontamination Enclosure System: A series of connected rooms for the decontamination of workers (a Personnel Decontamination Enclosure System) or of materials and equipment (Equipment Decontamination Enclosure System).
M. Designated Representative: The Owner's agent who is authorized to exercise general contract administration and industrial hygiene inspection of the work under the direction of the Owner.
N. Differential Air Pressure Recording Device: A device capable of producing a continual strip record, in increments of 0.001 inches of water, of the pressure differential between the containment area (work area) and the ambient air pressure.
O. Equipment Decontamination Enclosure System: A decontamination system for waste materials and equipment, typically consisting of a designated area of the work area, a washroom, and a holding area, with an air lock between any two adjacent rooms and a curtained doorway between the holding area and the non-work area. Not to be used for personnel entry/exit.
P. Encapsulant (Sealant): A liquid material which can be applied to ACM and which controls the possible release of asbestos fibers from the material.

Q. Enclosure: Procedures necessary to completely enclose ACM behind air-tight, impermeable, permanent barriers.

R. Fixed Object: A unit of equipment or furniture in the work area which cannot be removed from the work area.

S. Friable: Any material which, when dry, may be crumbled, pulverized, or reduced to powder by hand pressure.

T. Full Face-piece High Efficiency Respirator (FFHER): A respirator which covers the wearer's entire face from the hairline to below the chin and which is equipped with a HEPA filter.

U. Half Mask High Efficiency Respirator (HMHER): A respirator which covers one-half of the wearer's face, from the bridge of the nose to below the chin, and is equipped with HEPA filters.

V. HEPA Filter: A high efficiency particulate air (HEPA) filter capable of trapping and retaining 99.97 percent of the fibers of 0.3 micrometer or larger in diameter.

W. HEPA Vacuum Equipment: High efficiency particulate air (HEPA) filtered vacuuming equipment having a UL 586 filter system capable of collecting and retaining asbestos fibers.

X. Lock-down: Procedure of applying an encapsulant as a protective coating or sealant to a surface from which ACM has been removed in order to control and minimize airborne asbestos fiber generation that might result from residual asbestos-containing debris.

Y. Monitor Representative: Owner's Third Party Monitor who is authorized to perform industrial hygiene inspection of the work.

Z. Movable Object: A unit of equipment or furniture that can be removed from the work area.

AA. Plasticize: To cover floors and walls with plastic sheeting as herein specified.

BB. Personnel Decontamination Enclosure System: A decontamination system for personnel and limited equipment, typically consisting of an equipment room, shower room, and clean room, with an air lock between any two adjacent rooms, and a curtained doorway between the equipment room and the work area, and a curtained doorway between the clean room and the non-work area. The decontamination system serves as the only entrance/exit for the work area.

CC. Powered Air Purifying Respirator (PAPR): Either a full face-piece, helmet, or hooded respirator that powers breathing air to the wearer after the air has been purified through a HEPA filter.

DD. Removal: The act of removing and transporting asbestos-containing or asbestos-contaminated materials from the work area to a suitable disposal site.

EE. Surfactant: A chemical wetting agent added to water to improve penetration, thus reducing the quantity of water required for a given operation or area.

FF. Third Party Monitor: Owner's agent who is authorized to perform industrial hygiene inspection of the work. In this specification the Third Party Monitor shall be referred to as the Owner's Monitor Representative.

GG. Wet Cleaning: The process of eliminating asbestos contamination from building surfaces and objects by using cloths, mops, or other cleaning tools which have been dampened with amended water or asbestos removal encapsulant and by afterwards disposing of these cleaning tools as asbestos-contaminated waste.

HH. Work Area: Designated rooms, spaces, or areas of the project where asbestos abatement actions are to be undertaken or which may become contaminated as a result of such abatement actions. A contained work area has been sealed, plasticized, and equipped with a decontamination enclosure system. A non-contained work area is an isolated or controlled-access area which has not been plasticized.

1.7 PERSONNEL QUALIFICATIONS AND REQUIREMENTS

A. Experience and Training: The Contractor's job supervisors, foremen, and workers shall be adequately trained and knowledgeable in the field of asbestos abatement. All phases of the work shall be executed by skilled craftsmen experienced in each respective trade. Proof of such experience shall be submitted upon request by the Owner. Improperly trained, untrained, or inexperienced personnel shall not be allowed in the work area(s). Personnel shall meet minimum training and experience requirements outlined in this Section.

1. The Contractor's on-site job supervisor shall have successfully completed, within the last twelve months, the EPA-approved course "Supervision of Asbestos Abatement Projects", and shall be qualified as an EPA-certified Contractor/Supervisor. Course must be provided by an EPA-approved training provider.
2. The job supervisors and foremen shall be thoroughly familiar with and experienced in asbestos removal and related work and shall meet the requirements of a competent person set down in OSHA Standard 29 CFR 1926.1101.
3. All asbestos abatement workers shall be knowledgeable, qualified, and trained in the removal, handling, and disposal of asbestos material and in subsequent cleaning of the affected environment. All asbestos abatement workers shall be certified as having attended and satisfactorily completed asbestos worker training in accordance with OSHA Standard 29 CFR 1926.1101. Course must be provided by an EPA-approved training provider.
4. The Contractor's job supervisors, foremen, and asbestos abatement workers shall be certified and licensed as required by the Commonwealth of Virginia.
5. Before commencement of work, all personnel who are to enter the work area shall be instructed in and shall be knowledgeable of the appropriate procedures for personnel protection and asbestos abatement. On-site training in the use of equipment and facilities unique to this job site shall be performed. Emergency evacuation procedures from the work area shall also be included in worker training.

B. Supervision Requirements: The Contractor shall provide adequate job supervision for all phases of the asbestos abatement work.

1. The Contractor shall have a designated job supervisor present on site whenever work described in this Section is in progress. If the job supervisor leaves the site for any reason a temporary job superintendent, who meets the requirements of this Section and is familiar with the current status of the work, shall be designated. The Owner's Designated Representative shall be informed of the substitution.
2. The Contractor shall furnish one or more foremen who are familiar and experienced with asbestos removal and its related work, safety procedures, and equipment.
3. The job supervisor and/or one or more foremen shall be required to be continually inside each work area whenever work (preparation, removal, or cleaning) is in progress.

C. Worker Medical Examinations: The Contractor shall provide medical examinations for all employees engaged in asbestos removal and disposal operations, in accordance with OSHA Standards 29 CFR 1910.134(b), 1926.1101, and applicable state regulations. The Contractor shall ensure that all employee examination results are on file in his office and available for review and are maintained in accordance with OSHA Standard 29 CFR 1926.1101.

1.8 SUBMITTALS

Unless noted otherwise, the Contractor shall conform to submittal requirements listed in this section and other sections of the Contract Specifications.

A. Pre-Project Submittal Information: Submit the following information: **(submit 5 complete copies for review)**

1. Proof of written notifications required by Paragraph "Permits, State Licenses and Notifications" of this Section. Proof that all required permits have been obtained.
2. Proof of written notification to the local police department and fire department that asbestos abatement work is being conducted. As a minimum, the notification letter shall include the address of the Facility, dates work is to be performed, and Design Plans indicating the areas to undergo abatement.
3. Documentation of compliance with all requirements of paragraph "Requirements and Qualifications" of this Section. Submittals shall include:
   a. Proof of work experience and successful completion of required EPA-certified training courses for the Contractor's job supervisors, foremen, and workers.
   b. Proof that the job supervisors, foremen, and asbestos abatement workers meet State certification and license requirements.
   c. Provide the name of the designated job supervisor(s) and foremen.
   d. Proof of a current medical surveillance program for all Contractors' personnel to work on this project.
4. Proof of a respiratory protection program. Submit level of respiratory protection intended for each operation required by the project.
5. Proof of historic airborne fiber data. Submit airborne asbestos fiber monitoring data from an independent air monitoring firm to substantiate selection of respiratory protection proposed. Data shall include the following for each procedure required by the work: 1. date of measurement; 2. type of work task monitored; 3. methods used for sample collection and analysis, and; 4. number, duration and results of samples taken. If no Negative Exposure Assessment is submitted, work must begin the in maximum respiratory requirements as determined by all Federal, state and local regulations.
6. Proof that a landfill site has been located and arrangements for transport and disposal of asbestos-containing or asbestos-contaminated materials have been made. Provide the name and location of the landfill, and waste transport company, if applicable.
7. Manufacturer's literature on all proposed job related equipment and products to be used on this project. Include Material Safety Data Sheets (MSDS) for encapsulants, mastic removal products, fire retardant plastics, and other chemicals to be used on this project.
8. Certification from the encapsulant manufacturer that the encapsulant to be used is compatible with finish materials and with the operating temperatures of the systems to be encapsulated.
9. A detailed Asbestos Removal and Disposal Work Plan which describes all aspects of the work to be performed for this project. The Plan shall include the following:
   a. Physical description of work area (i.e., state, city, facility name, building or area designation).
   b. Description of the asbestos scheduled for abatement (i.e., location, dimensions, quantities, etc.).

c. Step-by-step description of the method(s) which will be used to remove the ACM's (i.e., glove bag, modified glove bag, negative pressure enclosure, etc.).
d. A site plan which indicates the following: 1) locations of utility tie-ins; 2) location of waste staging and storage areas; 3) locations for placement of temporary office and material storage trailers, and; 4) worker lunchroom and temporary toilet locations.
e. A detailed description of the work area enclosure. Provide shop drawings (with dimensions and locations) of proposed decontamination facilities and work areas. These drawings shall indicate the following: 1) areas to be sealed off and work area boundaries; 2) proposed layout and location of the decontamination enclosure systems, and; 3) proposed location(s) of the AFD(s) and pressure differential recorder. Include a detailed description of any modifications or changes to be made to the specified negative pressure work area enclosure.
f. Specimen of the daily log proposed for use. Minimally, the log should include the date(s) and time(s) when all personnel enter and leave the work area(s).

B. Owner at the time specified. Untimely submittal of information may be cause for halting work.

1. A request for services shall be submitted at least 24 hours in advance of required air monitoring tests and inspections to be performed by the Owner's Monitor Representative.
2. Results of all air monitoring performed by the Contractor shall be posted within 24 hours after collection for all workers to see. A copy of the results shall be given to the Owner's Designated Representative at the same time.
3. A certified, signed, and completed copy of each waste shipment record forms used, and receipts from the landfill operator which acknowledge the Contractor's delivery(s) of material, shall be submitted within three days following removal of ACM from building.
4. Differential Air Pressure Readings: Results of the strip chart record of the work area pressure within 24 hours after the recording was made for all areas where abatement is performed under negative pressure.

C. Post-Project Submittals: The Contractor shall provide the following information.

1. Notarized copies of a daily log showing the date(s) and time(s) of entrance to and exit from the work area(s) for all persons.
2. Compilation in chronological order of all air monitoring records pertaining to this project.
3. Compilation of all waste shipment record forms, bills of lading, or disposal receipts pertaining to this project.
4. Copies of notifications to applicable agencies (see Subparagraph "Pre-Project Submittal Information" of this Section) that the asbestos abatement project has been completed.
5. Certification that mechanical and electrical systems disturbed by the Contractor during work under contract have been reinstalled and are in proper working order.

1.9 TESTING REQUIREMENTS AND RESPONSIBILITIES

Air monitoring will be performed before, during, and after asbestos abatement to document airborne asbestos fiber concentrations. In general, the Owner will be responsible for ambient air monitoring inside and outside the work area and for performing clearance testing. The Contractor shall be responsible for personal air monitoring for his employees to determine

employee exposure and the level of respiratory protection required. The following paragraphs identify specific responsibilities.

A. Owner's Responsibilities:

1. The Owner will employ an industrial hygiene (IH) testing laboratory (Owner's Monitor Representative) for air monitoring and clearance testing.
2. Area air samples will be collected and analyzed using NIOSH Method 7400. Air samples will be collected during each shift from the work area, at the AFD exhaust, at the decontamination enclosure clean room, and in adjacent non-work areas.
3. In accordance with applicable regulations, clearance testing by Phase Contrast Microscopy (initial and final, where applicable) will be performed. Air samples will be collected to demonstrate final re-occupancy clearance. The fiber concentration of each sample must less than 0.01 fibers per cubic centimeter (f/cc).
4. Owner's Monitor Representative will perform inspections of the work area, as specified.

B. Contractor's Responsibilities:

1. The Contractor, at his expense, shall provide all tests required by specified applicable regulations, codes, and standards and any other tests for his use. The use of a testing laboratory by the Owner does not release the Contractor from providing tests required for the protection and safety of his employees.
2. The Contractor shall employ an independent IH testing laboratory for analysis of personal air monitoring samples. The laboratory used for air sample analysis shall be successfully participating in the "Proficiency Analytical Testing (PAT) Program for Laboratory Quality Control for Asbestos."
3. From each work area the Contractor, at his expense, shall collect and analyze personal air monitoring samples. Sampling shall be repeated during each different work activity. Sample collection and analysis shall be performed using the OSHA Reference Method as outlined in 29 CFR 1926.1101. Results of Contractor testing shall be posted for review by workers prior to the start of the next days work, and shall be provided to the Owner's Designated Representative within 24 hours after completion of the tests.
4. The Contractor shall be advised whenever questions arise concerning compliance with standards of quality and completeness of the work, and shall use his best efforts to resolve any such questions to the satisfaction of the Owner.
5. Where clearance air monitoring tests and/or Monitoring Representative inspections are specified, the Contractor shall notify the Owner's Designated Representative at least 24 hours in advance of the required test and/or inspection.

C. Time Requirements for Owner's Inspections and Testing

Where visual inspections or air testing is required to be performed by the Owner's Monitor Representative or Designated Representative the Contractor shall allow for the following response/analytical time for completion of the inspection/test.

1. Where visual inspections are required, allow 24 hours beginning from the time the Contractor's request is received by the Owner's Designated Representative, for the performance of the inspection.

2. Where PCM clearance air monitoring tests are required, allow 24 hours beginning from the time the Contractor's request is received by the Owner's Designated Representative, to the beginning of the air test. Allow an additional six (6) hours after beginning the test for sample collection and analysis.
3. Where TEM clearance air monitoring tests are required, allow 24 hours beginning from the time the Contractor's request is received by the Owner's Designated Representative, to the beginning of the air test. Allow an additional 48 hours after beginning the test for sample collection and analysis.
4. Where Polarized Light Microscopy (PLM) bulk sampling tests are required, allow 24 hours beginning from the time the Contractor's request is received by the Owner's Designated Representative, to the beginning of the bulk sampling. Allow an additional 48 hours after beginning the test for sample collection and analysis.

PART 2 - PRODUCTS

2.1 MATERIALS

Materials furnished under this section shall be standard products of manufacturers regularly engaged in the production of the items and shall conform to OSHA Standard 29 CFR 1926.1101; EPA Standard 40 CFR 61, Subpart M; Department of Transportation Standards 49 CFR 171, 172, and 173; applicable state regulations; and requirements specified herein. Materials listed under this section "or equal" shall be provided for work under contract.

A. Plastic: Plastic or Polyethylene Sheet provided for this project shall be of 6-mil thickness shall be provided in rolls of sizes which will minimize the frequency of joints.
B. Plastic: Plastic or Polyethylene Sheet provided for this project shall be equal to Griffolyn T-55 flame resistant-reinforced-polyvinyl chloride film.
C. Duct Tape: Duct tape shall be capable of sealing joints of adjacent sheets of plastic and of attaching plastic sheeting to finished surfaces without damage to existing finish and shall be capable of adhering under both dry and wet conditions, including use of amended water.
D. Surfactant: Surfactant (Wetting Agent) shall consist of resin materials in a water base, which have been tested to ensure materials are non-toxic and non-hazardous. Surfactants shall be installed according to the manufacturer's written instructions.
E. Lock-down Encapsulants: Encapsulants used after asbestos removal to lock-down fugitive fibers shall carry a Class "A" fire resistance rating and shall have an ASTM E-162 flame spread index of 15 or less. A tint shall be given to the encapsulant by means of the addition of non-toxic, nonflammable colorings before application. The encapsulant shall be installed according to the manufacturer's written instructions.
F. Silicone Sealant: Silicone Sealant shall be single component, solvent curing silicone sealant with 25% elongation capacity, -65^{O}F to 450^{O}F service range. Sealant shall be used to seal space around pipes when constructing a permanent barrier air seal. Sealant membrane shall be not less than 1/8" and not greater than 3/8" thick. Sealant shall be applied against a backer rod, fiberglass mat, or other suitable backup material. Sealant application shall be according to the manufactures written instructions.
G. Caulking Sealant: Caulking sealant shall be single component, non-sag elastomer with 1600% elongation capacity. Sealant shall meet the requirements of Federal Specification TT-S-00230C, Class A Type II. Sealant shall be used to form an airtight seal around plywood barriers or

temporary partitions, to seal along the seams of the decontamination enclosure system's plywood sheathing, and to seal around piping or other small penetrations of the work area. Sealant application shall be according to the manufactures written instructions.

H. Insulation Cement: Insulation Cement shall be ASTM C 195 (100°F to 1,600°F), mineral fiber, with a thermal conductivity 0.85 maximum at 200°F mean when tested per ASTM C 177.

I. Foam Sealant: Foam Sealant shall be expanding urethane Class 1 foam sealant with a Underwriters Laboratories, Inc. (U.L. 723) flame spread index of 25 or less, smoke developed index of 0, and a minimum operating temperature range between -100°F and 250°F.

J. Plywood: Plywood used for temporary partitions, decontamination enclosure systems, and tunnels shall be an exterior grade and a minimum 3/8-inch thick.

K. Spray Adhesive: Spray Aerosol Adhesive shall be specially formulated to stick to sheet polyethylene (3M 76, 3M 77, or equivalent).

L. Other Materials: All other materials, such as lumber, plywood, tools, scrapers, brushes, cleaning materials, adhesive, nails, hardware, etc., which are required to perform the work described in this Section shall be provided. Materials and equipment shall be new or used, uncontaminated by asbestos, in serviceable condition, and appropriate for the intended purpose.

M. Disposal Bags: Plastic Disposal Bags shall be a minimum of six mils in thickness. Bags shall be labeled in accordance with this Section.

N. Shipping Containers: Impermeable Containers shall be suitable to receive and retain any asbestos-containing or asbestos-contaminated materials until they are disposed of at an approved landfill. The containers shall be labeled in accordance with this Section. Containers shall be both airtight and watertight and conform to DOT Standard 49 CFR 178.224. Each container shall be constructed of fiber, hard plastic, or metal, with locking, airtight lids.

O. Labels: Disposal bags and shipping containers shall bear danger labels, transportation packaging labels, and generator identification information. Labels shall be permanently affixed to all bags and shipping containers containing ACM, in accordance with OSHA Standard 29 CFR 1926.1101, DOT Standard 49 CFR Part 171 and 172, and EPA Standard 40 CFR Part 61.150(a)(1)(v).

1. Danger label format and color shall conform to OSHA Standard 29 CFR 1926.200. Danger labels shall display the following legend/information:

DANGER
ASBESTOS
MAY CAUSE CANCER
CAUSES DAMAGE TO LUNGS
DO NOT BREATHE DUST
AVOID CREATING DUST

2. DOT label format and color shall conform to DOT Standard 49 CFR 172.407. DOT labels shall display the following legend/information:

RQ ASBESTOS
CLASS 9
NA 2212, III

3. Generator identification information shall be affixed to each DOT label format and color shall conform to DOT Standard 49 CFR 172.304. Generator identification information labels shall display the following legend/information:

GENERATOR'S NAME:_____
GENERATOR'S 24 HOUR PHONE:_____
GENERATOR'S FACILITY ADDRESS:_____

P. Reuse of Containers: If impermeable containers used to transport bagged asbestos waste to the landfill are to be reused, the empty containers shall display the following label:

RESIDUE:
LAST CONTAINED ASBESTOS RQ

Q. Warning Signs: Warning Signs shall be posted at the perimeter of the work area prior to abatement operations in accordance with OSHA Standard 29 CFR 1926.1101. Danger sign format and color shall conform to OSHA Standard 29 CFR 1926.200. The signs shall display the legend indicated below:

DANGER
ASBESTOS
MAY CAUSE CANCER
CAUSES DAMAGE TO LUNGS
AUTHORIZED PERSONNEL ONLY
WEAR RESPIRATORY PROTECTION AND PROTECTIVE CLOTHING IN THIS AREA

2.2 EQUIPMENT

Equipment furnished under this section shall conform to applicable federal and state regulations, local codes, and the requirements specified herein.

A. Communication Equipment: Devices suitable for inter-room communications, such as "walkie-talkies" or "radio band" communicators shall be provided.

B. Spraying Equipment: Equipment used to apply amended water or removal encapsulant shall be of a low-pressure type to prevent disturbance of the asbestos prior to physical controlled removal. Airless spray equipment shall be provided for the application of asbestos encapsulant.

C. Air Filtration Device (AFD): For local exhaust ventilation and work area air filtration, high efficiency particulate air (HEPA) filtration systems equipped with filtration equipment which complies with ANSI Z9.2. shall be provided. Air movement systems or air filtering equipment should not discharge unfiltered air outside the work area. A sufficient quantity of AFD's shall be used in order to provide one workplace air change every 15 minutes. To calculate the total air flow movement:

$$\text{Total Cubic Feet Per Minute (CFM)} = \frac{\text{Volume of work area in cubic feet}}{\text{15 minutes}}$$

To calculate the number of units needed for the abatement:

$$\text{Number units needed} = \frac{\text{Total cubic feet per minute (CFM)}}{\text{Capacity of air filtration devices in CFM}}$$

Work area exhaust must be sufficient to maintain the required negative pressure (vacuum) in the work area, with respect to the adjacent surrounding non-work areas. Provisions shall be made to change filters without releasing captured asbestos fibers to the surroundings.

D. Differential Air Pressure Recording Device: A continual strip record of the pressure differential between the work area and the adjacent non-work areas shall be provided. Strip chart shall show the time on the horizontal axis and work area vacuum on the vertical axis.

E. Vehicles: Trucks or Vans used for the transportation of asbestos waste shall be enclosed and suitable for loading, temporary storage, transit, and unloading of asbestos-contaminated waste without exposure to persons or property.

F. Electrical Service: Compliance with applicable standards of the National Electric Code (NEC); Underwriter's Laboratories (UL); OSHA; local building codes; and regulations governing equipment, materials, layout, and installation of temporary electric service shall be ensured by the Contractor.

1. Lighting: Temporary lighting within the work area and decontamination systems shall be provided. Minimum illumination level in the work area shall be ten foot-candles. Minimum illumination level in pedestrian tunnels, stairways, ladder runs, and decontamination enclosure systems shall be 20 foot-candles.
2. Ground Fault Interrupters: The Contractor shall provide and use ground fault circuit interrupters on all electric power service used in the work area and in decontamination enclosure systems.

G. Fire Extinguishers: Type "ABC" dry chemical extinguishers or a combination of several extinguishers of NFPA recommended types for the fire hazard exposures in each extinguisher location shall be provided. Minimum size of extinguisher shall be 4-A, and 40-B:C. Supply a minimum of one extinguisher for every 1,000 square feet of floor area, with a maximum travel distance to an extinguisher of 75-feet. Supply at least one extinguisher in each decontamination enclosure equipment room, and clean room.

H. Smoke Detectors: Smoke detectors of the battery powered ionization type will be required at a rate of one per 5,000 square feet, with a minimum of one smoke detector in the decontamination enclosure clean room, and one in the work area.

I. Water Filtration System: A system capable of filtering and retaining particles larger than 5.0 microns in size shall be provided.

2.3 WORKER PROTECTIVE CLOTHING AND EQUIPMENT

Protective clothing and equipment shall conform to OSHA Standard 29 CFR 1926.1101

A. Protective Clothing: Workers shall be provided with sufficient sets of properly fitting, full-body, disposable coveralls, head covers, gloves, and 18-inch high boot-type foot covers. Disposable coveralls, head covers, and 18-inch high boot-type foot covers shall be constructed of material equal to DuPont "TYVEK-Type 14" or Kimberly-Clark "Kleenguard", as a minimum requirement.

1. The Contractor shall provide authorized visitors and the Owner's Monitor Representative suitable properly fitting protective disposable clothing, headgear, hard hats, eye protection, and footwear (up to four sets per 8-hour shift) whenever they are required to enter the work area.

B. Equipment: Eye protection and hard hats required for job conditions or by applicable safety regulations shall be provided.

C. Respiratory Protection: The Contractor shall be solely responsible for providing adequate respiratory protection at all times for all individuals in the work area. Types of respirators used shall be approved by MSHA/NIOSH for asbestos in accordance with OSHA Standard 29 CFR 1926.1101. The Contractor shall provide a level of respiratory protection that supplies an airborne fiber level inside the respirator below 0.01 fibers per cubic centimeter (f/cc), as the minimum level of protection allowed. Determine the proper level of protection by dividing the actual airborne fiber count in the work area by the "protection factors" given below for each respirator type:

Respirator Type	Protection Factor
Air purifying: negative-pressure respirator, high efficiency HEPA filter, half-face-piece	10
Air purifying: negative-pressure respirator, high efficiency HEPA filter, full-face-piece	50
Powered air purifying (PAPR): positive pressure respirator, high efficiency HEPA filter, full-face-piece	100
Type C supplied air: continuous flow full-face-piece with HEPA escape	100
Type C supplied air: positive-pressure respirator, pressure-demand, full-face-piece HEPA escape	1000
Type C supplied air: pressure-demand, full-face-piece, equipped with an auxiliary SCBA	Over 1000

1. The Contractor shall provide workers with individually issued and marked respiratory equipment. Respiratory equipment shall be suitable for the asbestos exposure level(s) in the work area(s), as specified in OSHA Standard 29 CFR 1926.1101, and as more stringently specified otherwise, herein.
2. Where respirators with disposable filter parts are employed, the Contractor will provide sufficient filter parts for replacement as necessary or as required by the applicable regulation.

2.4 DECONTAMINATION ENCLOSURE SYSTEMS

The Contractor shall provide a personnel decontamination enclosure system, and an equipment decontamination enclosure system in accordance with OSHA Standard 29 CFR 1926.1101, and as specified herein.

A. Structure: Use modular systems or build using wood or metal frame studs, joists, and rafters placed at a maximum of 24 inches on-center. Interior shall be sheathed with plywood caulked or taped airtight at joints and seams. Interior and exterior shall be lined with two layers of 6-mil plastic sheeting, with a minimum overlap of 16 inches at seams and sealed (airtight) by tape and adhesive. If decontamination enclosure system is constructed outside of building, provide plywood on exterior and make structure weatherproof. The structure shall be capable of withstanding a minimum lateral wind load of 50 psf. The roof of the structure shall be capable of supporting a minimum live load of 100 psf. Compliance with local building codes and other regulations governing temporary structures shall be ensured by the Contractor.

B. Curtained Doorways: Two overlapping sheets of 6-mil polyethylene shall be placed over a framed doorway and secured along the top of the doorway. Secure the vertical edge of the outer sheet along one vertical side of the doorway and the vertical edge of the second sheet along the opposite vertical side of the doorway. The sheets shall be weighted so that they close quickly after being released.

C. Air Locks: Air locks shall consist of two curtained doorways placed a minimum of three feet apart.

D. Personnel Decontamination Enclosure System: This system shall be the only entrance/exit for the work area. The decontamination enclosure system shall be placed adjacent to the work area and shall consist of three totally enclosed chambers and a gross clean-up system as follows:

1. Workers' Gross Clean-up System: Just inside the work area and immediately adjacent to the equipment room, a workers' gross clean-up system will be used for removal of dust, debris, or loose material from protective clothing and footwear. This area is to be separated from the equipment room by a curtained doorway. A "hand-held" water device or shower shall be provided to facilitate the gross removal of loose material.
2. Equipment Room: The equipment room shall have a curtained doorway to separate it from the work area (the workers' gross clean-up area), and share a common air lock with the shower room. The equipment room shall be large enough to accommodate at least one worker (allowing him enough room to remove his protective clothing and footwear), a 6-mil disposal bag in an impermeable container, and any other equipment which the Contractor wishes to store when not in use.
3. Shower Room: The shower room shall have two common air locks: one which separates it from the equipment room and one which separates it from the clean room. The shower room shall contain at least one shower with hot and cold water per eight workers. Careful attention shall be given to the shower to ensure against leaking of any kind. The Contractor shall supply shampoo and soap in the shower room at all times. Contractor shall be responsible for needed water and electrical and the cost associated.
4. Clean Room: The clean room shall share a common air lock with the shower room and shall have a curtained doorway to separate it from outside non-contaminated areas. The clean

room shall be sized to adequately accommodate the work crew. Benches for seating, lockable lockers for storage of workers' street clothing, shelves for storing respirators, and a location for posting shall be provided in this area. Clean disposable clothing, replacement filters for respirators, clean dry towels, and other necessary items shall also be provided in the clean room. A hinged, lockable door shall be placed at the entrance into the clean room to prevent unauthorized access into the work area. The clean room shall not be used for storage of tools, equipment, or materials or as office space.

E. Equipment Decontamination Enclosure System: This system is located adjacent to the work area. The equipment decontamination enclosure system, consisting of two totally enclosed spaces, shall be constructed as follows:

1. Equipment Washroom: An equipment washroom shall have two air locks: one adjacent to the work area and one common air lock, which separates it from the holding area. The washroom shall have facilities for washing material containers and equipment. Gross removal of dust and debris from contaminated material containers and equipment shall be accomplished in the work area, prior to moving to the washroom.
2. Holding Area: A holding area shall share a common air lock with the equipment washroom and shall have a curtained doorway to outside areas. A hinged, lockable door shall be placed at the holding area entrance to prevent unauthorized access into the work area.

F. Utilities: Lighting, heat, and electricity shall be provided as necessary by the Contractor. Contractor shall be responsible for all cost, permits and equipment needed for temporary utilities.

PART 3 - EXECUTION

3.1 PERSONNEL PROTECTION AND DECONTAMINATION PROCEDURES

A. General: The Contractor shall take all safety measures and precautions necessary to protect his employees and building occupants in accordance with OSHA Standard 29 CFR 1926, EPA Standard 40 CFR, Part 61, Subpart M, and applicable state regulations. The Contractor shall be solely responsible for enforcing personnel protection requirements. Table 3.1 summarizes the minimum levels of personnel protection required during work of this Section.

1. Workers shall be fully protected with respirators and protective clothing from the time of first disturbance of asbestos-containing or asbestos-contaminated materials prior to commencing actual asbestos abatement until final cleanup is completed.
2. Workers or authorized visitors shall not eat, smoke, drink, or chew gum or other substances while in the work area(s) or decontamination area(s).
3. Contaminated worker footwear, eye protection, and hard hats shall be stored in the equipment room when not in use in the work area and, upon completion of asbestos abatement, disposed of as asbestos-contaminated waste or decontaminated for reuse.
4. Except for government inspectors with jurisdiction, no visitors except those authorized by the Owner shall be allowed in work area.

B. Worker Respiratory Protection: With approval from the Owner's Designated Representative, historical airborne fiber level data may serve as the basis for selection of the level of respiratory

protection to be used for the time interval prior to the Contractor establishing the eight-hour time weighted average (TWA) for an abatement task. Historical data provided by the Contractor shall be based on personal air monitoring of the "breathing zone" of his employees for other asbestos abatement projects, and the data were obtained during work operations conducted under workplace conditions closely resembling the processes, type of material, control methods, work practices, and environmental conditions used and prevailing in the Contractor's current operations. Documentation of aforementioned results shall be presented to the Owner's Designated Representative for review of applicability. This will not relieve the Contractor in providing personal air monitoring to determine the TWA for the work under contract. The TWA shall be determined in accordance with 29 CFR 1926.1101. After the TWA is established, the Contractor may furnish respirators as presented in the Specifications.

TABLE 3.1

MINIMUM PERSONAL PROTECTION REQUIREMENTS

Activity	Respiratory Protection	Dispos. Clothing	Post-Work Shower	Decon. Unit
Removal of "loose items" prior to work - no potential asbestos exposure	None	NO	NO	NO
Removal of "loose items" prior to work - potential asbestos exposure	HMHER	YES	YES	YES
Precleaning prior to abatement	HMHER	YES	NO	NO
Sealing openings prior to abatement - no potential asbestos exposure	None	NO	NO	NO
Plasticizing prior to abatement - potential asbestos exposure	None	NO	NO	NO
Gross removal	PAPR	YES	YES	YES
Glove bag and wrap and cut removal	PAPR	YES	YES	YES
Transite board removal	PAPR	YES	YES	YES
Preliminary cleanup (after gross removal)	PAPR	YES	YES	YES
Plastic removal after initial clearance	FFHER	YES	YES	YES
Lockdown	PAPR	YES	YES	YES
Cleaning and plastic removal after lockdown before final clearance	FFHER	YES	YES	YES
Activities after final clearance	NONE	NO	NO	NO
Loading ACM on truck (outside work area)	HMHER	YES	NO	NO

- These are minimum requirements only. The Contractor is fully responsible for the personal protection of all workers at the site. Where conflict or interpretational differences arise, the text of the specifications apply.
- If acceptable historical airborne fiber level data is not available for the work method in question the Contractor shall furnish workers with PAPR - full-face, powered-air purifying respirators for each different work activity until the Contractor determines the 8-hour time-weighted average (TWA). After the TWA is established, the Contractor may furnish

respirators as presented in the Specifications, with the minimum requirement as indicated above.

- Requirement may be waived by the Owner's Designated Representative on an individual case by case basis. Refer to text of Specifications.

PAPR: **Full face-mask powered air purifying respirator.**
HMHER: **Half face-mask high efficiency respirator.**
FFHER: **Full face-mask high efficiency respirator.**

1. In lieu of historical data the Contractor shall furnish for use by his workers full-face, powered-air, negative pressure respirators for each different work activity until the Contractor determines the TWA. After the TWA is established the Contractor may furnish respirators as presented in the Specifications.
2. Review material safety data sheets (MSDS) for products to be used during the work. Follow recommendations as given by the product manufacturer for personnel protection required to be worn during product application.

C. Air Monitoring Requirements: The Contractor's shall be responsible for development and implementation of an air monitoring program in accordance with OSHA Standard 29 CFR 1926.1101, good industrial hygiene practices, and the requirements herein for gross removal and/or glove bag removal. Documentation of air sampling shall include as a minimum, calculations of minimum sample volume to achieve necessary detection limits; sampling time; sampling location (or subject); evidence of periodic inspection of sampling equipment; documentation of daily pre- and post-calibration of sampling equipment; detailed description of worker protective devices; description of any atypical environmental conditions; and a description of work practices/procedures/controls in operation during the sampling period. Documentation of sample analysis shall include, as a minimum, sample identification; total sample duration, sample flow rate; the "Limit of Reliable Quantitation"; total air volume; total fibers counted (with work sheets); total fields counted; blank filter analysis; and reticule field area. Airborne fiber concentrations in fibers per cubic centimeter (f/cc) shall be calculated and reported at the 95 percent confidence level.

1. Full-shift personal exposure air sampling of workers shall be performed to establish the 8-hour (TLV-TWA) exposure. Such sampling shall be conducted for each employee (or representative group of employees) expected to evidence the highest exposure in each work area for each type of activity on the first shift that site preparation, removal, or cleanup activities occur. Similarly, 30-minute personal exposure air sampling shall be conducted during activities anticipated to produce the highest airborne concentrations to determine the Excursion Limit. Personal exposure sampling shall be repeated at least every third day for areas where removal and cleanup operations are conducted for more than 1 week, or at any time that conditions indicate to the Contractor or the Contractor's CIH that the most recent personal sampling results are no longer indicative of employee exposure. PCM personal samples shall be collected and analyzed according to the OSHA Reference Method in OSHA Standard 29 CFR 1926.1101.

D. Personnel Entrance and Decontamination Procedures for Gross Removal Operations: The following entry/exit procedures shall be used for gross removal work areas.

1. All workers and authorized visitors shall enter the work area through the worker decontamination enclosure system.
2. All individuals who enter the work area shall sign the entry log, located in the clean room, upon each entry and exit. The log shall be permanently bound and shall identify fully the facility, agents, contractor(s), the project, each work area and worker respiratory protection employed. The job supervisor shall be responsible for the maintenance of the log during the abatement activity.
3. Each worker or authorized visitor shall, upon entering the job site, remove street clothes in the clean room and put on a clean respirator (with new filters, if appropriate) and clean protective clothing before entering the work area through the shower room and equipment room.
4. Each worker or authorized visitor shall, each time he leaves the work area, remove gross contamination from clothing before leaving the work area; proceed to the equipment room and remove all clothing except respirator; still wearing the respirator, proceed to the shower room; clean the outside of the respirator with soap and water while showering; remove filters and wet them and dispose of them in the container provided for that purpose; wash and rinse the inside of the respirator; and thoroughly shampoo and wash himself.
5. Following showering and drying off, each worker or authorized visitor shall proceed directly to the clean room, dress in street clothes, and exit the decontamination enclosure system immediately. Disposable clothing of the type worn inside the work area is not permitted outside the work area.

3.2 PREPARATION OF WORK AREA

The following Subparagraph "General Preparations" outlines procedures applicable to all contained work areas. Work procedures specific for preparing a gross asbestos removal area and a glove bag asbestos removal area are addressed in their respective Subparagraphs. Procedures specific for preparing a non-contained work area are addressed in its respective Subparagraph.

A. General Preparations:

1. Request that the Owner's Monitor Representative perform area monitoring and establish a background count prior to the masking and sealing operations for each removal area.
2. Erect barricades; post notices and warning signs.
3. Provide and install decontamination enclosure systems in accordance with Paragraph "Decontamination Enclosure Systems" of this Section.
4. Seal floor drains, sumps and other collection devices with 6-mil plastic and plywood, as necessary, and provide a system to collect all water used by the Contractor. Collected water shall be passed through a water filtration system prior to being discharged into the sanitary sewer.
5. Ensure that the Contractor's communication equipment is in place, in operating condition, and in operation during work described in this Section.
6. Separate by means of airtight barriers (temporary partitions) parts of the building that are not included in the work area(s) from parts of the building that will undergo asbestos abatement.
7. Seal with temporary partitions: open doorways, cased openings, and corridors which will not be used for passage during work.
8. Completely seal airtight and isolate the work area. All openings, including but not limited to doorways, windows, tunnels, ducts, grilles, cracks, diffusers, openings through which pipe conduit

passes, and any other penetrations of the work area, shall be covered with plastic sheeting taped or caulked airtight.

9. Maintain emergency and fire exits from the work areas or establish alternative exits satisfactory to the local fire officials. Emergency exits and routes shall be established and clearly marked with duct tape arrows or other effective designations to permit easy location from anywhere within the work area. Emergency exits shall be secured to prevent access from uncontaminated areas and yet permit emergency exiting. Exits shall be checked daily against exterior blockage or impediments to exiting.
10. Temporary lighting within the work area and decontamination system shall be provided as required to achieve minimum illumination levels specified in Paragraph "Electrical Service" of this Section.
11. Piping systems designated for abatement work are to be shut down, cooled, and depressurized during removal work.
12. After sealing and plasticizing the area (see Subparagraph(s) "Gross Removal Area Preparations" install and initiate operation of air filtration devices (see Subparagraph "Air Filtration Devices" of this Section) to provide a negative pressure of at least -0.02 inches of water within the work area relative to surrounding non-work areas. Negative pressure systems shall be operated in accordance with "Specifications and Operating Procedures for the use of Negative Pressure Systems for Asbestos Abatement," Guidance for Controlling Asbestos-Containing Materials in Buildings, EPA Document 560/5-85/024 (June 1985). Modifications or changes made to the specified negative pressure work area enclosure must be approved by the Owner's Designated Representative prior to their use (see Paragraph "Submittals").
    a. AFD's shall be exhausted to the building exterior.
    b. Once they are operational, do not shut down AFD's until the work area is released to the Owner following final clearance procedures.
    c. A dedicated power supply for the AFD equipment shall be utilized.
    d. Provide additional AFD's (minimum of 20% of capacity required in Paragraph "Air Filtration Device (AFD)" of this Section) as backup for emergency or other use.

B. Gross Removal Area Preparations: The Contractor shall perform the following preparations in conjunction with those outlined in Subparagraph "General Preparations", for each area to undergo gross removal asbestos abatement.

1. Shut down, isolate, and lock out or tag heating, ventilating, and air conditioning (HVAC) systems which serve or which pass through the work area. Filters in HVAC systems shall be removed and treated as asbestos-contaminated waste. The Owner will supply and install replacement filters.
2. Shut down, disconnect, and lock out or tag all electric power to the work area so that there is no possibility of its reactivation until after clearance testing of the work area.
3. Work Area Pre-cleaning Procedures: After establishing the decontamination enclosure systems, prepare and pre-clean the work area as specified below and as indicated by the drawing notes:

    a. Movable and loose items not removed by the Owner from work areas shall be cleaned using HEPA vacuum equipment and/or wet cleaning methods as appropriate and shall be removed from work areas to a temporary location designated by the Owner. These items will be received by and protected from damage or loss by the Owner and reinstalled by the Contractor after final clearance.
    b. Movable and loose items as noted on the Design Plans shall be removed from the work areas and discarded as asbestos-contaminated waste.

c. Fixed objects within the work area shall be pre-cleaned using HEPA vacuum equipment and/or wet cleaning methods as appropriate. Joints of covers or casings shall be sealed with tape and fixed objects enclosed with a minimum of two layers of 6-mil plastic sheeting sealed airtight with tape. Disassembly of these fixed objects is not required unless otherwise noted.
d. Existing pipe insulation which does not contain asbestos materials and is to remain shall be cleaned using HEPA vacuum equipment and/or wet cleaning methods as appropriate prior to being wrapped and sealed airtight in two layers of 6-mil plastic sheeting.
e. Prior to being plasticized, the work areas shall be cleaned using HEPA vacuum equipment and/or wet cleaning methods as appropriate. Methods that raise dust, such as dry sweeping or vacuuming with equipment not equipped with HEPA filters, shall not be used.

4. Plasticize the area after pre-cleaning, using the following procedure:

a. Cover floor with one layer of 6-mil plastic sheet, turning layer a minimum of 16 inches up wall, and seal layer to wall.
b. Cover walls with one layer of 6-mil plastic sheet, lapping wall layer a minimum of 16 inches, and seal layer to floor layer.
b. Repeat procedure for second layer. All joints in plastic sheets shall be glued and taped in such a manner as to prohibit air passage. Joints on plastic layers shall be staggered to reduce the potential for water to penetrate.

5. Areas immediately adjacent to removal areas, such as corridors or hallways which are not in work areas but are necessary routes to and from work areas, shall be protected with two layers of 6-mil plastic sheet on floors and two layers of 6-mil plastic sheet on walls and ceilings. The Contractor is permitted to provide plastic-enclosed, framed-in tunnels in lieu of plasticizing walls and ceilings. Openings from these areas into areas where asbestos material is removed shall have curtained doorways to minimize fiber dispersal into adjacent areas.

C. Non-Contained Work Area: In the areas indicated on the Design Plans, the construction of a sealed, contained work area is impracticable. The following preparations shall be performed when preparing a non-contained work area.

1. Request that the Owner's Monitor Representative perform area monitoring and establish a background count prior to the masking and sealing operations for each removal area.
2. Provide a roped-off perimeter around the area where the ACM is to be removed and handled. Post notices and warning signs around the perimeter of the work area.
3. Provide a decontamination enclosure system adjacent to the work area, in accordance with Paragraph "Decontamination Enclosure Systems" of this Section.
4. Provide a system to collect all water used by the Contractor. Collected water shall be passed through a water filtration system prior to being discharged into the sanitary sewer.
5. Seal with plastic and tape from the interior all doorways, windows, vents and other openings in the exterior walls of the facility adjacent to the work.
6. Cover all horizontal surfaces within ten feet of the removal operation, including the ground, with one layer of 6-mil plastic sheet.

3.3 PRE-REMOVAL INSPECTION

Prior to removal of any ACM the Contractor shall notify the Owner's Monitor Representative and request a pre-removal inspection. Posting of warning signs, construction of temporary partitions, plasticizing of work area, building of personnel and equipment decontamination enclosure systems, and all other preparatory steps shall have been taken prior to notification of the Monitor Representative. The Contractor shall not begin asbestos removal until the Monitor Representative approves the work area preparations.

3.4 MAINTENANCE OF CONTAINED WORK AREA AND DECONTAMINATION ENCLOSURE SYSTEMS

A. Ensure that barriers and plastic linings are effectively sealed and taped. Repair damaged barriers and remedy defects immediately upon their discovery. Visually inspect enclosures at the beginning and end of each work period. Use smoke methods to test effectiveness of barriers.

B. Thoroughly clean the decontamination enclosure systems at the end of each 8-hour work shift, and more frequently if required.

3.5 REMOVAL OF ASBESTOS-CONTAINING MATERIAL

A General: The Contractor shall be responsible for the proper removal of ACM from the work area using standard abatement industry removal techniques. Work shall be observed by the Owner's Monitor Representative or his representative. Approval of the Contractor's abatement techniques is required by the Monitor Representative to allow for the continuance of work.

1. ACM shall be wetted with amended water or removal encapsulant prior to being disturbed. Keep ACM wet during removal through to the disposal of these materials (material packed in disposal containers shall be in a wet condition).

B Gross Removal of all Insulations, Ceiling Tiles, Block Walls, Framed Walls (Interior Abatement): The Contractor shall use the "gross removal" procedure described below or other standard abatement industry removal technique suited to the type, shape and construction of ACM, its attachment, devices and protective coverings. The Contractor shall use methods and equipment which will keep the fiber count during removal operations to less than 0.5 fibers/cc of air when tested by NIOSH Method 7400.

1 Gross Removal Procedure:

a. Prepare the area as described in Subparagraph "Gross Removal Area Preparations" of this Section. Spray asbestos materials with a fine mist of amended water or removal encapsulant, saturating materials to substrate. Spray the asbestos material repeatedly during work process to maintain a wet condition and to minimize asbestos fiber dispersion.

b. Remove the saturated asbestos material in small sections. As it is removed, pack the material in sealable plastic bags which shall be placed in labeled drums for transport. Remove insulation materials carefully from equipment; do not permit them to fall to the floor.

2 After completion of all stripping work, surfaces from which ACM have been removed shall be wet brushed and sponged or cleaned by some equivalent method to remove all visible residue.

C Glove Bag Removal: The Contractor shall use the procedure as described below when using the glove bag technique for the removal of ACM from pipe fittings. The Contractor shall use methods and equipment which will keep the fiber count during removal operations to less than 0.1 fibers/cc of air when tested by NIOSH Method 7400.

1 Glove Bag Procedure for a Contained Work Area:

a. Prepare the area as described in Subparagraph "Glove Bag Removal Area Preparations" of this Section. For removal of ACM using the glove bag technique where the establishment of a sealed contained work area is impracticable, prepare work area as described in Subparagraph "Glove Bag Procedure for Non-Contained Work Area".

b. Place the glove bag around the section of pipe to be worked on, secure glove bag, and reinforce it. Glove bags shall provide an airtight seal around the area from which the asbestos is to be removed. Check for leakage by introducing smoke into the bag and then gently squeezing the bag with hand pressure. If any leaks occur, the bag shall be resealed and retested until no leakage occurs. This seal shall be continually maintained until all asbestos has been removed from the equipment surface enclosed within the glove bag.

c. If the section of pipe is covered with an aluminum jacket, this is removed first. It is important to fold in the sharp edges of the jacket to prevent cutting the bag when it is placed in the bottom. With the insulation exposed, cut the insulation inside the glove bag at each end of the section to be removed. Slit insulation from end to end and remove insulation from pipe. Throughout this process spray water on the cutting area to keep dust to a minimum.

d. When all insulation is removed, introduce water spray into glove bag and carry out recommended washing down procedure (tools, pipe, and upper half of bag). Scrub and wipe down the exposed pipe inside the glove bag. Apply lock-down sealant to all exposed insulation and pipe.

e. Remove excess air from glove bag with HEPA vacuum and remove glove bag from pipe. Continuous stripping or sliding of the glove bag shall not be allowed. Use glove bag for only one application prior to disposal. Place glove bag in a plastic disposal bag and seal bag prior to placing it in a labeled drum for transport.

D Wrap and Cut of Complete Pipe Sections: The following procedure may be used for removal of complete pipe sections. Note that all piping scheduled for demolition shall be purged prior to cutting. The Contractor shall use methods and equipment which will keep the fiber count during removal operations to less than 0.1 fibers/cc of air when tested by NIOSH Method 7400.

1 Procedure:

a. Prepare the area as described in Subparagraph "Glove Bag Removal Area Preparations" of this Section.

b. Using the glove bag removal technique described in Subparagraph "Insulation and Lagging on Pipes and Fittings", remove strips of insulation along the pipe to be demolished. Width of strip

should be sufficient for the use of a torch or power cutting equipment to cut pipe while leaving remaining insulation undisturbed.

c. Spray aerosol adhesive on insulated pipe and wrap it airtight in one layer of 6-mil plastic sheet. Cut pipe at exposed strips. Remove pipe section from work area as asbestos waste (refer to Paragraph "ACM Waste Packaging And Load Out Procedures" for decontamination and load out procedures.

E Asbestos-Containing Debris: The Contractor shall use methods and equipment which will keep the fiber count during removal operations to less than 0.1 fibers/cc of air when tested by NIOSH Method 7400.

1 Procedure:

a. Prepare the area as described in Subparagraph "Glove Bag Removal Area Preparations" of this Section.

b. Spray debris with amended water or removal encapsulant. While still wet, place loose pieces in 6-mil plastic bags and pack bags in labeled drums for transport.

c. If breaking is required to reduce the bulk size for disposal, wrap debris airtight in two layers of 6-mil plastic sheeting. Break while contained inside plastic layer. Pack into an additional plastic disposal bag and place in labeled drums for transport.

F Asbestos roofing materials: For removal of roofing materials, prepare work area as "Non-Contained Work Area". The Contractor shall use methods and equipment which will keep the fiber count during removal operations to less than 0.1 fibers/cc of air when tested by NIOSH Method 7400.

1. Roofing materials, Transite Trim:

a. The asbestos roofing materials and/or transite trim shall be removed as intact as possible and shall be kept saturated with amended water during dismantling and/or removal. Removal shall be performed whereby the asbestos is kept intact if possible, in order to minimize emission of airborne fibers.

b. Roofing may be placed in waste container for disposal but may not be thrown from roof. Waste must be lowered.

G Floor Tile: The work area shall be prepared as described in Subparagraph "Gross Removal Area Preparations" of this Section. If floor tile is the only ACM to be removed in a work area, modify area preparations to include the following: (1) only plasticize the walls to a height of three feet to protect them from water damage and (2) do not plasticize floor area. The Contractor shall use methods and equipment which will keep the fiber count during removal operations to less than 0.1 fiber/cc of air when tested by NIOSH Method 7400.

The following procedure shall be used for removal of asbestos-containing floor tile and/or mastic.

1 Spray with amended water floors covered with asbestos-containing tile. Wet the material sufficiently to reduce the release of fibers if the tiles are broken upon removal. Continually wet the material during the removal process to minimize fiber dispersion.

2 Remove floor tile using a flat hoe or scraper. Remove adhesive backing using a flat hoe, approved mastic removal solvent, or other suitable method. Do not grind or sand floor.

3 As material is removed, wrap it in two layers of plastic and place it in labeled containers for transport. After completion of all stripping work, scrape, wet-brush, and wipe floor. No tile or mastic residue shall remain on the floor surface following removal and cleaning.

H Additional Removal Requirements:

1 Stop Work Order: The Owner's Designated Representative shall issue a stop work order should the fiber count inside the work areas exceed 2.0 f/cc, and/or should the fiber count in adjacent non-work areas exceed 0.01 f/cc of air or the background count (use the greater of these two values as the reference). Work shall not resume until the condition(s) causing the increase are corrected, surfaces outside of the work area are decontaminated using HEPA vacuums or wet cleaning techniques, and the Contractor receives written notice from the Owner's Designated Representative.

2 Emergency Procedures: The following refers to asbestos contamination which occurs accidentally in an area prepared in accordance with Paragraph "Glove Bag Removal Area Preparations". Each project activity in the work area shall be immediately discontinued if asbestos contamination of the general work area occurs as a result of damage to or improper use of glove bags or damage to any other friable ACM located within the area. Project activities shall not be resumed until all surfaces in the area that are likely to have become contaminated with asbestos fibers have been thoroughly cleaned with a HEPA vacuum or by wet cleaning methods. The Contractor shall notify the Owner's Designated Representative immediately of all emergency shutdown actions. Asbestos removal work shall not resume until the Contractor receives written notice from the Owner's Designated Representative.

3 AFD Failure or Power Outage: On loss of negative pressure or electric power outage abatement shall stop immediately and shall not resume until power is restored and AFD ventilation equipment is operation again. When power failure or loss of AFD equipment lasts or is expected to last longer than one hour:

a. The make-up air inlets shall be sealed airtight, and;

b. The decontamination enclosure systems shall be sealed airtight after evacuation of workers and/or authorized visitors from the work area.

3.6 ACM WASTE PACKAGING AND LOAD OUT PROCEDURES

Packaging of ACM shall conform to OSHA Standard 29 CFR 1926.1101, DOT 49 CFR 171,172, and 173, EPA Standard 40 CFR Part 61, and the requirement as heretofore specified. ACM waste shall be placed in a wet condition into properly labeled disposal bags. Asbestos-contaminated materials which are likely to puncture plastic disposal bags (wire, bricks, pipe, etc.) shall be placed in hard wall shipping containers for handling and transport to disposal site. Materials to be transported through a non-work area building space shall be placed in hard wall shipping containers for handling. The specific requirements for decontamination of waste containers and load out through decontamination enclosure systems is outlined below:

A. Decontamination of Impermeable Containers and Plastic Disposal Bags: The following procedure shall be used when removing ACM from the work area for load out through the equipment decontamination enclosure system:

1. Place asbestos waste in disposal bags. Large items not able to fit into disposal bags shall be wrapped in one layer of 6-mil thick plastic sheeting. Clean outer covering of asbestos waste package by wet cleaning and/or HEPA vacuuming in a designated part of the work area. Move wrapped asbestos waste to the equipment washroom, wet clean each object and place it inside a second disposal bag, or a second layer of 6-mil plastic sheeting, as the item's physical characteristics demand. Air volume shall be minimized, and the bags or sheeting shall be sealed airtight.
2. After cleaning, move asbestos-contaminated waste containers to the equipment decontamination enclosure holding area pending removal to uncontaminated areas. Ensure that containers are removed from the holding area by workers who have entered the equipment decontamination enclosure system from the uncontaminated non-work area. Dress workers moving asbestos waste in clean overalls of a color different than from that of coveralls used in the work area. Ensure that workers do not enter from uncontaminated areas into the equipment washroom or the work area. Ensure that contaminated workers do not exit the work area through the equipment decontamination enclosure system.
3. Immediately upon completion of the waste removal for one work shift, the equipment decontamination enclosure system shall be thoroughly cleaned using wet methods and HEPA vacuum equipment.

B. Decontamination of Impermeable Containers and Plastic Disposal Bags: The following procedure shall be used when removing ACM from the work area for load out through the personnel decontamination enclosure system:

1. Waste removal shall not occur during worker shift changes or when workers are showering or changing. Care shall be taken to prevent short circuiting and cycling of air outward through the shower and clean room. Where only one means of egress exists and the shower room is used as an equipment washroom, workers are to be stationed in each room/area of the decontamination enclosure to transfer/process the containers and equipment to or from adjacent sections. These workers are not to cross the airlock into the adjacent areas/rooms until the waste/equipment transfer is finished for that period, and the workers have gone through decontamination. The clean room workers shall have entered from uncontaminated areas with appropriate personal protective equipment; or, prior to the start of waste transfer, these workers shall have exited the work area, fully decontaminated, and subsequently donned clean personal protective equipment.
2. Place asbestos waste in disposal bags. Large items not able to fit into disposal bags shall be wrapped in one layer of 6-mil thick plastic sheeting. Clean outer covering of asbestos waste package by wet cleaning and/or HEPA vacuuming in the work area before transferring such items into the decontamination enclosure system. Place items in the airlock which separates the shower room from the equipment room. Contaminated workers shall not enter the airlock during this procedure.
3. Containers of ACM and the equipment shall be removed from the airlock by workers stationed in the shower room during waste removal operations. Once in the washroom, external surfaces of contaminated containers and equipment shall be cleaned a second time

by wet cleaning. The cleaned containers of ACM and equipment shall be placed in uncontaminated disposal bags, or wrapped in a second layer of 6-mil plastic sheeting, as the item's physical characteristics demand. Air volume shall be minimized, and the bags or sheeting shall be sealed airtight. Place materials in hard wall containers, if required.

4. The clean containerized items shall be moved into the airlock separating the shower room and the clean room for subsequent transfer to the clean room. The shower room workers shall not enter this airlock or the work area until waste removal is finished for that period. Containerized items and cleaned equipment shall be removed from the airlock to the clean room by workers who have entered the equipment decontamination enclosure system from the uncontaminated non-work area with appropriate personal protective equipment.
5. The clean room shall be considered a holding area during the period of active waste transfer only for the purpose of the load out of ACM. Storage of waste in the clean room is prohibited.
6. Immediately upon completion of the waste removal, the worker decontamination enclosure system shall be thoroughly cleaned using wet methods and HEPA vacuum equipment. Cleaning shall be completed prior to reversion to its primary function as a worker decontamination area.

3.7 CLEANUP AND CLEARANCE TESTING OF WORK AREAS

A. Clearance Procedure for Areas Prepared As "Gross Removal" Areas: Cleaning of the work areas and other contaminated areas shall be conducted in accordance with the four-step procedure described below.

Step 1. Preliminary Cleanup/Visual inspection
Step 2. Initial Clearance/Visual inspection
Step 3. Lock-down
Step 4. Final Re-occupancy/Visual Inspection and fiber count of <0.01 f/cc using PCM Clearance analysis procedures.

1. Step 1. Preliminary Cleanup:

   a. Remove visible accumulation of asbestos material and debris. Remove asbestos waste in impermeable containers from the work area.
   b. Wet clean or clean with HEPA vacuum equipment all surfaces and objects in the work area. After completion of the cleaning operation, perform a complete visual inspection of the work area to ensure that it is free of visible contamination.
   c. Upon request from the Contractor, the Owner's Monitor Representative will perform a visual inspection. If the Owner's Monitor Representative finds visible accumulations of dust in the work area, the Contractor shall repeat the wet cleaning as heretofore specified.
   d. Upon completion of Preliminary Cleanup, AFD's shall complete a minimum of 60 air exchanges before Initial Clearance Testing begins.

2. Step 2. Initial Clearance Testing:

   a. Upon request from the Contractor for Initial Clearance Testing in work area, the Owner's Monitor Representative shall test for Initial Clearance.

b. Areas which do not comply with Initial Clearance Testing criteria shall continue to be cleaned by the Contractor until the specified standard of cleaning is achieved.
c. When the fiber count is acceptable, one layer of plastic sheeting shall be carefully removed from ceilings, walls, and floor (if two layers are present), and shall be folded inward to trap any debris. Plastic sheeting and seals on doors, windows, vents, and other openings shall remain in place.

3. Step 3. Lock-down:

a. After successful completion of the Initial Clearance Procedure, all surfaces and building components from which ACM was removed (ceilings, piping, and floors) and the remaining layer of protective plastic sheeting shall receive lock-down encapsulant.
b. When the encapsulant is dry, the layer of plastic sheeting shall be wet cleaned and/or HEPA vacuumed again.
c. The second layer of plastic shall be removed from walls and floor and shall be folded inward to trap any debris. Do not remove seals from doors, windows, etc. or disconnect the negative pressure equipment.

4. Step 4. Final Clearance:

a. Upon request from the Contractor, a final inspection will be performed by the Owner's Monitor Representative for the purpose of observing whether the condition of cleaned areas are free of dust, dirt, and debris. Evidence of asbestos contamination identified during the inspection will necessitate further cleaning as heretofore specified.
b. When the work area passes the Monitor Representative's inspection, the Monitor Representative shall test for reoccupancy using non-aggressive sampling techniques. Samples shall be analyzed by the Interim PCM. Failure to achieve the clearance level will necessitate further cleaning as heretofore specified.
c. When the work area passes the clearance test, disconnect AFD's and seal the intake to the machine airtight with 6-mil plastic sheeting and tape. Remove all controls and seals established.

C. Clearance Procedure for Non-Contained Work Areas: Areas in which ACM was removed in a non-contained work area, clearance shall be determined by the procedure described below.

1. Cleanup and Clearance:

a. Remove visible accumulation of asbestos material and debris.
b. Wet clean or HEPA vacuum all surfaces from which ACM was removed.
c. After cleaning, perform a complete visual inspection of the work area to ensure that the work area is free of contamination. Sealed drums, bags, and all equipment used in the work area shall be removed from work area.
d. Upon request of the Contractor, the Owner's Monitor Representative will perform a visual inspection. Evidence of asbestos contamination identified during the inspection will necessitate further cleaning as heretofore specified.
e. When the work area passes the visual inspection by the Owner's Monitor Representative, all surfaces in which ACM was in contact shall receive lock-down encapsulant.

f. When the work area passes clearance, all controls and barricades established shall be removed.

3.8 DISPOSAL AND TRANSPORTATION OF ASBESTOS-CONTAMINATED WASTE

A. Storage of Containerized ACM: As the work progresses, remove sealed and labeled drums of ACM from the work area and place in a lockable trailer, dumpster, or other container approved for storage or transport of asbestos waste. Asbestos-containing waste shall remain under the positive control of the Contractor and must never be left unattended in an area or on a vehicle where unauthorized persons could gain access.

B. Sealed and labeled disposal bags/drums shall be used to transport asbestos-contaminated waste to the landfill. Procedures for hauling and disposal shall comply with 40 CFR, Part 61, 49 CFR, Part 171 and 172, and other applicable state, regional, and local government regulations. Procedures for removal from the work area and disposal of waste are outlined below:

1. Properly completed waste shipment record forms shall accompany asbestos waste which is transported to a disposal site. This form shall be signed by each party who has control over the asbestos waste, and a copy retained by each party as responsibility for the waste is transferred to the next party. Copies of all manifest forms and waste receipts shall be provided to the Owner's Designated Representative (see Paragraph "Submittals").
2. The Owner's Designated Representative shall be notified not less than 48 hours prior to the proposed time of removal and delivery of asbestos-contaminated waste to the landfill.
3. Trucks hauling asbestos waste shall be totally enclosed to prevent loss or damage to waste containers en route to approved landfill. The interior of the vehicles shall be lined with two layers of 6-mil plastic.
4. Mark with a visible warning sign during the loading and unloading of asbestos-containing waste all vehicles used to transport the waste material. Danger sign legend, text size, style and arrangement shall conform to the requirements of EPA Standard 40 CFR Part 61.149 (d)(1).
5. Only sealed plastic bags or drums are permitted to be deposited in landfill. Damaged, broken, or leaking plastic bags shall remain in the drum, and the drum shall be deposited in landfill. Workers shall place asbestos waste in the landfill. Throwing or dumping of containers shall not be allowed. Workers unloading and handling the sealed bags/drums at the disposal site shall wear appropriate personnel protective equipment including respirators and protective clothing.
6. After the vehicle is unloaded at the landfill, the plastic sheeting that was taped to the floor, sides and top of the truck shall be carefully removed and placed in properly labeled bags for disposal with the rest of the waste.

END OF SECTION

APPENDICES

APPENDIX B

XRF LEAD-BASED PAINT TESTING RESULTS

REPRESENTATIVE LEAD BASED PAINT SURVEY
PORTSMOUTH CIVIC COMPLEX
PORTSMOUTH, VA

Reading No	Time	Component	Substrate	Side	Condition	Color	Site	Floor	Room	Results	PbC	Units
1	4/26/2019 8:30	Shutter Cal									5.47	cps
2	**4/26/2019 8:32**	**calibration**								**Positive**	**1.1**	**mg / cm ^2**
3	4/26/2019 8:32	calibration								Negative	0.8	mg / cm ^2
4	**4/26/2019 8:32**	**calibration**								**Positive**	**4.4**	**mg / cm ^2**
5	4/26/2019 8:39	DOOR	METAL	C	CRACKED	BROWN	portsmouth jail		ext.	Negative	< LOD	mg / cm ^2
6	4/26/2019 8:41	WINDOW	METAL	C	CRACKED	BROWN	portsmouth jail		ext.	Negative	< LOD	mg / cm ^2
7	4/26/2019 8:45	WINDOW	METAL	A	INTACT	BROWN	portsmouth jail		ext.	Negative	< LOD	mg / cm ^2
8	4/26/2019 8:48	wall	METAL	A	INTACT	white	magistrates		ext.	Negative	< LOD	mg / cm ^2
9	4/26/2019 8:48	door	METAL	A	INTACT	black	magistrates		ext.	Negative	< LOD	mg / cm ^2
10	4/26/2019 8:49	window frame	METAL	A	INTACT	black	magistrates		ext.	Negative	< LOD	mg / cm ^2
11	4/26/2019 8:51	door frame	METAL	A	INTACT	black	J & D bldg		ext.	Negative	< LOD	mg / cm ^2
12	4/26/2019 8:51	door	METAL	A	INTACT	black	J & D bldg		ext.	Negative	< LOD	mg / cm ^2
13	4/26/2019 8:52	window frame	METAL	A	INTACT	black	J & D bldg		ext.	Negative	< LOD	mg / cm ^2
14	4/26/2019 9:08	PIPE	METAL	A	INTACT	GRAY	jail		roof	Negative	< LOD	mg / cm ^2
15	4/26/2019 9:10	CMU WALL	CMU	C	INTACT	WHITE	jail		STAIRWELL	Negative	< LOD	mg / cm ^2
16	4/26/2019 9:13	DOOR	METAL	A	INTACT	GRAYY	jail		STAIRWELL	Negative	< LOD	mg / cm ^2
17	**4/26/2019 9:14**	**BARS**	**METAL**	**A**	**INTACT**	**GRAYY**	**jail**	**8**	**cells**	**Positive**	**1.7**	**mg / cm ^2**
18	4/26/2019 9:16	window frame	METAL	A	INTACT	GRAYY	jail	8	cells	Negative	< LOD	mg / cm ^2
19	4/26/2019 9:17	door	METAL	A	INTACT	GRAYY	jail	8	cells	Negative	< LOD	mg / cm ^2
20	4/26/2019 9:18	wall	concrete	A	INTACT	tan	jail	8	cells	Negative	< LOD	mg / cm ^2
21	4/26/2019 9:19	wall	concrete	A	INTACT	tan	jail	8	cells	Negative	< LOD	mg / cm ^2
22	4/26/2019 9:20	door frame	metal	A	INTACT	gray	jail	8	cells	Negative	< LOD	mg / cm ^2
23	4/26/2019 9:24	door frame	metal	A	INTACT	gray	jail	8	cells	Negative	< LOD	mg / cm ^2
24	4/26/2019 9:24	door frame	metal	A	INTACT	gray	jail	7	cells	Negative	< LOD	mg / cm ^2
25	4/26/2019 9:25	door	metal	A	INTACT	gray	jail	7	cells	Negative	< LOD	mg / cm ^2
26	**4/26/2019 9:26**	**cell bars**	**metal**	**A**	**INTACT**	**gray**	**jail**	7	cells	Negative	< LOD	mg / cm ^2
27	4/26/2019 9:27	wall	concrete	A	INTACT	tan	jail	**7**	**cells**	**Positive**	**1.6**	**mg / cm ^2**
28	4/26/2019 9:28	floor	concrete	A	INTACT	gray	jail	7	cells	Negative	< LOD	mg / cm ^2
29	4/26/2019 9:30	door frame	metal	A	INTACT	gray	jail	7	cells	Negative	< LOD	mg / cm ^2
30	4/26/2019 9:31	firedoor	metal	A	INTACT	red	jail	7	cells	Negative	< LOD	mg / cm ^2
31	4/26/2019 9:34	cell bars	metal	A	INTACT	gray	jail	7	cells	Negative	< LOD	mg / cm ^2
32	4/26/2019 9:37	window frame	metal	C	INTACT	gray	jail	6	cells	Negative	< LOD	mg / cm ^2
33	4/26/2019 9:37	window frame	metal	C	INTACT	gray	jail	6	cells	Negative	< LOD	mg / cm ^2
34	4/26/2019 9:39	CMU WALL	CONCRETE	C	INTACT	white	jail	6	cells	Negative	0.7	mg / cm ^2
35	4/26/2019 9:40	radiator heat units	metal	C	INTACT	gray	jail	6	cells	Negative	< LOD	mg / cm ^2
36	4/26/2019 9:41	floor	concrete	C	INTACT	gray	jail	6	cells	Negative	< LOD	mg / cm ^2
37	4/26/2019 9:44	pillar	concrete	C	INTACT	white	jail	6	cells	Negative	< LOD	mg / cm ^2
38	4/26/2019 9:45	inmate table	METAL	C	INTACT	gray	jail	6	cell block	Negative	< LOD	mg / cm ^2
39	**4/26/2019 9:46**	**inmate bed**	**METAL**	**C**	**INTACT**	**gray**	**jail**	6	cell block	Negative	< LOD	mg / cm ^2
40	4/26/2019 9:47	inmate cell bars	METAL	C	INTACT	gray	jail	**6**	**cell block**	**Positive**	**1**	**mg / cm ^2**
41	4/26/2019 9:48	inmate cell wall	METAL	C	INTACT	white	jail	6	cell block	Negative	< LOD	mg / cm ^2
42	4/26/2019 9:51	ceiling	concrete	C	INTACT	white	jail	6	cell block	Negative	< LOD	mg / cm ^2
43	4/26/2019 9:54	wall	concrete	B	INTACT1	white	jail	6	cell block hall	Negative	< LOD	mg / cm ^2
44	4/26/2019 9:54	wall	concrete	B	INTACT1	white	jail	5	cell block hall	Negative	< LOD	mg / cm ^2
45	4/26/2019 9:56	DOOR	METAL	B	INTACT1	GRAY	jail	5	cell block hall	Negative	< LOD	mg / cm ^2
46	**4/26/2019 9:57**	**CELL BARS**	**METAL**	**B**	**INTACT1**	**GRAY**	**jail**	5	cell block hall	Negative	< LOD	mg / cm ^2
47	4/26/2019 10:00	WALL	CONCRETE	B	INTACT1	WHITE	jail	**5**	**cell block hall**	**Positive**	**1.5**	**mg / cm ^2**
48	4/26/2019 10:01	WALL	CONCRETE	B	INTACT1	WHITE	jail	5	cell block hall	Negative	< LOD	mg / cm ^2
49	4/26/2019 10:02	CELL BAR	METAL	B	INTACT1	GRAY	jail	FOURTH	cell block hall	Negative	< LOD	mg / cm ^2
50	4/26/2019 10:03	WINDOW FRAME	METAL	A	INTACT1	GRAY	jail	FOURTH	cell block hall	Negative	0.6	mg / cm ^2
								FOURTH	cell block hall	Negative	< LOD	mg / cm ^2

REPRESENTATIVE LEAD BASED PAINT SURVEY
PORTSMOUTH CIVIC COMPLEX
PORTSMOUTH, VA

Reading No	Time	Component	Substrate	Side	Condition	Color	Site	Floor	Room	Results	PbC	Units
51	4/26/2019 10:04	CMU WALL	METAL	D	INTACT1	WHITE	jail	FOURTH	cell block hall	Negative	< LOD	mg / cm ^2
52	4/26/2019 10:05	DOOR FRAME	METAL	D	INTACT1	GRAY	jail	FOURTH	cell block hall	Negative	< LOD	mg / cm ^2
53	4/26/2019 10:06	DOOR	METAL	D	INTACT1	GRAY	jail	FOURTH	cell block hall	Negative	< LOD	mg / cm ^2
54	4/26/2019 10:18	DOOR	METAL	D	INTACT1	GRAY	jail	THIRD	cell block hall!	Negative	< LOD	mg / cm ^2
55	4/26/2019 10:19	DOOR FRAME	METAL	D	INTACT1	GRAY	jail	THIRD	cell block hall!	Negative	< LOD	mg / cm ^2
56	4/26/2019 10:20	CELL BAR	METAL	D	INTACT1	GRAY	jail	THIRD	cell block hall!	Negative	< LOD	mg / cm ^2
57	4/26/2019 10:22	CMU WALL	CMU	D	INTACT1	WHITE	jail	THIRD	cell block hall!	Negative	< LOD	mg / cm ^2
58	4/26/2019 10:24	DOOR	METAL	D	INTACT1	GRAY	jail	THIRD	cell block hall!	Negative	< LOD	mg / cm ^2
59	4/26/2019 10:26	CMU WALL	CONCRETE	D	INTACT1	WHITE	jail	SECOND	KITCHEN	Negative	< LOD	mg / cm ^2
60	4/26/2019 10:27	CMU WALL	CONCRETE	C	INTACT1	WHITE	jail	SECOND	KITCHEN	Negative	< LOD	mg / cm ^2
61	4/26/2019 10:28	DOOR FRAME	METAL	C	INTACT1	GRAY	jail	SECOND	KITCHEN	Negative	< LOD	mg / cm ^2
62	4/26/2019 10:28	DOOR FRAME	METAL	C	INTACT1	GRAY	jail	SECOND	KITCHEN	Negative	< LOD	mg / cm ^2
63	4/26/2019 10:29	DOOR	METAL	C	INTACT1	GRAY	jail	SECOND	KITCHEN	Negative	< LOD	mg / cm ^2
64	4/26/2019 10:30	CMU WALL	CONCRETE	C	INTACT1	WHITE	jail	SECOND	KITCHEN	Negative	< LOD	mg / cm ^2
65	4/26/2019 10:32	CMU WALL	CONCRETE	B	INTACT1	WHITE	jail	SECOND	KITCHEN	Negative	< LOD	mg / cm ^2
66	4/26/2019 10:34	CMU WALL	CONCRETE	A	INTACT1	WHITE	jail	SECOND	MEDICAL	Negative	< LOD	mg / cm ^2
67	4/26/2019 10:36	DOOR FRAME	METAL	A	INTACT1	GRAY	jail	SECOND	MEDICAL	Negative	< LOD	mg / cm ^2
68	4/26/2019 10:36	DOOR FRAME	METAL	A	INTACT1	GRAY	jail	SECOND	MEDICAL	Negative	< LOD	mg / cm ^2
69	4/26/2019 10:36	DOOR FRAME	WOOD	A	INTACT1	GRAY	jail	SECOND	MEDICAL	Negative	< LOD	mg / cm ^2
70	4/26/2019 10:38	WALL	CONCRETE	C	INTACT1	PINK	jail	SECOND	MEDICAL	Negative	< LOD	mg / cm ^2
71	4/26/2019 10:39	CELL BARS	METAL	C	INTACT1	WHITE	jail	SECOND	MEDICAL	Negative	< LOD	mg / cm ^2
72	4/26/2019 10:42	CMU WALL	CONCRETE	C	INTACT1	WHITE	jail	SECOND	MEDICAL	Negative	< LOD	mg / cm ^2
73	4/26/2019 10:43	WALL	CONCRETE	B	INTACT1	WHITE	jail	SECOND	SOUTH END LOBBY AREA	Negative	< LOD	mg / cm ^2
74	4/26/2019 10:44	DOOR	WOOD	B	INTACT1	WHITE	jail	SECOND	SOUTH END LOBBY AREA	Negative	< LOD	mg / cm ^2
75	4/26/2019 10:44	DOOR FRAME	METAL	B	INTACT1	WHITE	jail	SECOND	SOUTH END LOBBY AREA	Negative	< LOD	mg / cm ^2
76	4/26/2019 10:45	WINDOW FRAME	METAL	B	INTACT1	WHITE	jail	SECOND	SOUTH END LOBBY AREA	Negative	< LOD	mg / cm ^2
77	4/26/2019 10:50	wall	concrete cmu	B	INTACT1	WHITE	jail	SECOND	SOUTH END LOBBY AREA	Negative	< LOD	mg / cm ^2
78	4/26/2019 10:51	wall	CONCRETE	B	INTACT1	WHITE	jail	basement level	stairwell	Negative	< LOD	mg / cm ^2
79	4/26/2019 10:51	door	METAL	B	INTACT1	gray	jail	basement level	HALL	Negative	< LOD	mg / cm ^2
80	4/26/2019 10:52	door frame	METAL	B	INTACT1	gray	jail	basement level	HALL	Negative	< LOD	mg / cm ^2
81	**4/26/2019 10:53**	**railing**	**METAL**	**B**	**INTACT1**	**gray**	**jail**	**basement level**	**HALL**	Negative	< LOD	mg / cm ^2
82	**4/26/2019 10:54**	**stair frame**	**METAL**	**B**	**INTACT1**	**gray**	**jail**	**basement level**	**stairwell**	**Positive**	**10.7**	**mg / cm ^2**
83	4/26/2019 10:55	pipe	METAL	B	INTACT1	WHITE	jail	basement level	**stairwell**	**Positive**	**5.8**	**mg / cm ^2**
84	4/26/2019 10:57	door	METAL	B	INTACT1	gray	jail	basement level	stairwell	Negative	0.7	mg / cm ^2
85	4/26/2019 11:00	wall	CONCRETE	B	INTACT1	white	jail	basement level	stairwell	Negative	< LOD	mg / cm ^2
86	4/26/2019 11:01	cmu wall	CONCRETE	B	INTACT1	white	jail	basement level	hall	Negative	< LOD	mg / cm ^2
87	4/26/2019 11:04	door	METAL		INTACT1	gray	jail	basement level	hall	Negative	< LOD	mg / cm ^2
88	4/26/2019 11:05	door frame	METAL		INTACT1	gray	jail	basement level	hall	Negative	< LOD	mg / cm ^2
89	4/26/2019 11:08	cmu wall	CONCRETE	B	INTACT1	gray	jail	basement level	hall	Negative	< LOD	mg / cm ^2
90	4/26/2019 11:09	door	METAL	B	INTACT1	gray	jail	basement level	intake area	Negative	< LOD	mg / cm ^2
91	4/26/2019 11:10	door frame	METAL	B	INTACT1	gray	jail	basement level	intake area	Negative	< LOD	mg / cm ^2
92	4/26/2019 11:11	door frame	METAL	B	INTACT1	brown	jail	basement level	intake area	Negative	< LOD	mg / cm ^2
93	4/26/2019 11:12	WALL	CONCRETE	B	INTACT1	WHITE	jail	basement level	intake area	Negative	< LOD	mg / cm ^2
94	4/26/2019 11:14	DOOR FRAME	METAL	B	INTACT1	GRAY	jail	basement level	intake area	Negative	< LOD	mg / cm ^2
95	4/26/2019 11:20	WALL	CONCRETE	B	INTACT1	WHITE	Police Garage	PD PARKING	OUTSIDE	Negative	< LOD	mg / cm ^2
96	4/26/2019 11:21	PILLAR	CONCRETE	B	INTACT1	WHITE	Police Garage	PD PARKING	OUTSIDE	Negative	< LOD	mg / cm ^2
97	**4/26/2019 11:22**	**PILLAR**	**CONCRETE**	**B**	**INTACT1**	**YELLOW**	**Police Garage**	**PD PARKING**	**OUTSIDE**	Negative	< LOD	mg / cm ^2
98	**4/26/2019 11:22**	**PILLAR**	**CONCRETE**	**B**	**INTACT1**	**YELLOW**	**Police Garage**	**PD PARKING**	**OUTSIDE**	**Positive**	**2.8**	**mg / cm ^2**
99	4/26/2019 11:23	PILLAR	CONCRETE	B	INTACT1	YELLOW	Police Garage	PD PARKING	OUTSIDE	**Positive**	**2.6**	**mg / cm ^2**
100	4/26/2019 11:23	PILLAR	CONCRETE	B	INTACT1	YELLOW	Police Garage	PD PARKING	OUTSIDE	Negative	< LOD	mg / cm ^2
										Positive	**4.4**	**mg / cm ^2**

REPRESENTATIVE LEAD BASED PAINT SURVEY
PORTSMOUTH CIVIC COMPLEX
PORTSMOUTH, VA

Reading No	Time	Component	Substrate	Side	Condition	Color	Site	Floor	Room	Results	PbC	Units
101	4/26/2019 11:25	WALL	CONCRETE	D	INTACT1	BLACK	Police Garage	PD PARKING	OUTSIDE	Negative	< LOD	mg / cm ^2
102	4/26/2019 11:26	RAIL	METAL	D	INTACT1	YELLOW	Police Garage	PD PARKING	OUTSIDE	Negative	< LOD	mg / cm ^2
103	4/26/2019 11:27	RAIL	METAL	D	INTACT1	YELLOW	Police Garage	PD PARKING	OUTSIDE	Negative	< LOD	mg / cm ^2
104	4/26/2019 11:33	DOOR	METAL	B	INTACT1	WHITE	jail	FIRST	LOBBY	Negative	< LOD	mg / cm ^2
105	4/26/2019 11:34	DOOR FRAME	METAL	B	INTACT1	WHITE	jail	FIRST	LOBBY	Negative	< LOD	mg / cm ^2
106	4/26/2019 11:35	CMU WALL	CONCRETE	B	INTACT1	BLUE	jail	FIRST	LOBBY	Negative	< LOD	mg / cm ^2
107	4/26/2019 11:36	CMU WALL	CONCRETE	B	INTACT1	BLUE	jail	FIRST	LOBBY	Negative	< LOD	mg / cm ^2
108	4/26/2019 11:36	WINDOW FRAME	METAL	B	INTACT1	WHITE	jail	FIRST	LOBBY	Negative	< LOD	mg / cm ^2
109	4/26/2019 11:38	CMU WALL	CONCRETE	B	INTACT1	WHITE	jail	FIRST	LOBBY OFFICE	Negative	< LOD	mg / cm ^2
110	4/26/2019 11:40	WALL	DRYWALL	B	INTACT1	WHITE	jail	FIRST	LOBBY OFFICE	Negative	< LOD	mg / cm ^2
111	4/26/2019 11:41	DOORFRAME	METAL	B	INTACT1	BROWN	jail	FIRST	LOBBY OFFICE	Negative	< LOD	mg / cm ^2
112	4/26/2019 11:42	WALL	DRYWALL	B	INTACT1	BLUE	jail	FIRST	LOBBY OFFICE	Negative	< LOD	mg / cm ^2
113	4/26/2019 13:05	Shutter Cal									5.47	cps
114	**4/26/2019 13:06**	**Calibration**								**Positive**	**1.1**	**mg / cm ^2**
115	4/26/2019 13:06	Calibration								Negative	0.7	mg / cm ^2
116	**4/26/2019 13:06**	**Calibration**								**Positive**	**3.4**	**mg / cm ^2**
117	4/26/2019 13:08	PILLAR	CONCRETE		INTACT	BEIGE	Sheriff Garage	BASEMENT		Negative	< LOD	mg / cm ^2
118	4/26/2019 13:09	PILLAR	CONCRETE		INTACT	BEIGE	Sheriff Garage	BASEMENT		Negative	< LOD	mg / cm ^2
119	4/26/2019 13:09	PILLAR	CONCRETE		INTACT	BEIGE	Sheriff Garage	BASEMENT		Negative	< LOD	mg / cm ^2
120	4/26/2019 13:10	PILLAR	CONCRETE		INTACT	YELLOW	Sheriff Garage	BASEMENT		Negative	< LOD	mg / cm ^2
121	4/26/2019 13:10	PILLAR	CONCRETE		INTACT	YELLOW	Sheriff Garage	BASEMENT		Negative	< LOD	mg / cm ^2
122	4/26/2019 13:10	PILLAR	CONCRETE		INTACT	YELLOW	Sheriff Garage	BASEMENT		Negative	< LOD	mg / cm ^2
123	4/26/2019 13:14	WALL CMU	CONCRETE		INTACT	WHITE	Sheriff Garage	BASEMENT		Negative	< LOD	mg / cm ^2
124	4/26/2019 13:14	WALL CMU	CONCRETE	B	INTACT	WHITE	Sheriff Garage	BASEMENT		Negative	< LOD	mg / cm ^2
125	4/26/2019 13:15	WALL CMU	CONCRETE	C	INTACT	WHITE	Sheriff Garage	BASEMENT		Negative	< LOD	mg / cm ^2
126	4/26/2019 13:17	DOOR	METAL	C	INTACT	GRAY	Sheriff Garage	BASEMENT		Negative	< LOD	mg / cm ^2
127	4/26/2019 13:17	DOOR	METAL	C	INTACT	GRAY	Sheriff Garage	BASEMENT		Negative	< LOD	mg / cm ^2
128	4/26/2019 13:18	DOOR FRAME	METAL	C	INTACT	GRAY	Sheriff Garage	BASEMENT		Negative	< LOD	mg / cm ^2
129	4/26/2019 13:18	DOOR FRAME	METAL	C	INTACT	GRAY	Sheriff Garage	BASEMENT		Negative	< LOD	mg / cm ^2
130	4/26/2019 13:20	DOOR FRAME	WOOD	C	INTACT	GREEN	Sheriff Garage	BASEMENT		Negative	< LOD	mg / cm ^2
131	4/26/2019 13:20	DOOR	WOOD	C	INTACT	GREEN	Sheriff Garage	BASEMENT		Negative	< LOD	mg / cm ^2
132	4/26/2019 13:21	FLOOR	CONCRETE	C	INTACT	GRAY	Sheriff Garage	BASEMENT		Negative	0.8	mg / cm ^2
133	**4/26/2019 13:22**	**YELLOW CURB**	**CONCRETE**	**C**	**INTACT**	**YELLOW**	Sheriff Garage	**BASEMENT**		Negative	< LOD	mg / cm ^2
134	4/26/2019 13:24	RAIL AROUND HVACS	METAL	C	INTACT	YELLOW	Sheriff Garage	BASEMENT		**Positive**	**9.2**	**mg / cm ^2**
135	4/26/2019 13:25	FAN IN CEILING	METAL	C	INTACT	GREEN	Sheriff Garage	BASEMENT		Negative	< LOD	mg / cm ^2
136	4/26/2019 13:27	WALL	CONCRETE	A	INTACT	WHITE	Sheriff Garage	BASEMENT		Negative	< LOD	mg / cm ^2
137	4/26/2019 13:33	WALL CMU	CONCRETE	A	INTACT	WHITE	Sheriff Garage	BASEMENT		Negative	< LOD	mg / cm ^2
138	4/26/2019 13:33	FLOOR	CONCRETE	A	INTACT	RED	Sheriff Garage	BASEMENT	PAINT SHOP	Negative	< LOD	mg / cm ^2
139	4/26/2019 13:35	DOOR	WOOD	A	INTACT	GREEN	Sheriff Garage	BASEMENT	PAINT SHOP	Negative	< LOD	mg / cm ^2
140	4/26/2019 13:36	DOOR JAM	METAL	A	INTACT	GREEN	Sheriff Garage	BASEMENT	PAINT SHOP	Negative	< LOD	mg / cm ^2
141	4/26/2019 13:38	STAIRS	CONCRETE	A	INTACT	RED	Sheriff Garage	BASEMENT	PAINT SHOP	Negative	0.8	mg / cm ^2
142	**4/26/2019 13:39**	**HANDRAIL**	**METAL**	**A**	**INTACT**	**GREEN**	Sheriff Garage	**BASEMENT**	MECH ROOM	Negative	< LOD	mg / cm ^2
143	4/26/2019 13:42	DOOR	METAL	A	INTACT	WHITE	Sheriff Garage	BASEMENT	**MECH ROOM**	**Positive**	**6.62**	**mg / cm ^2**
144	4/26/2019 13:42	CMU WALL	METAL	C	INTACT	WHITE	Sheriff Garage	BASEMENT	MECH OFFICE	Negative	< LOD	mg / cm ^2
145	4/26/2019 13:47	CMU WALL	CONCRETE	C	INTACT	WHITE	Sheriff Garage	BASEMENT 911 halls	MECH OFFICE	Negative	< LOD	mg / cm ^2
146	4/26/2019 13:47	CMU WALL	CONCRETE	C	INTACT	WHITE	Sheriff Garage	BASEMENT 911 halls		Negative	< LOD	mg / cm ^2
147	4/26/2019 13:49	CMU WALL	CONCRETE	C	INTACT	WHITE	Sheriff Garage	BASEMENT 911 halls		Negative	< LOD	mg / cm ^2
148	4/26/2019 13:50	drywall partition	DRYWALL	C	INTACT	WHITE	Sheriff Garage	BASEMENT 911 halls	back fenced garage	Negative	< LOD	mg / cm ^2
149	4/26/2019 13:51	drywall doorframe	WOOD	C	INTACT	WHITE	Sheriff Garage	BASEMENT 911 halls	back fenced garage	Negative	< LOD	mg / cm ^2
150	4/26/2019 13:55	cmu wall	concrete	D	INTACT	WHITE	Sheriff Garage	BASEMENT 911 halls	back fenced garage	Negative	< LOD	mg / cm ^2

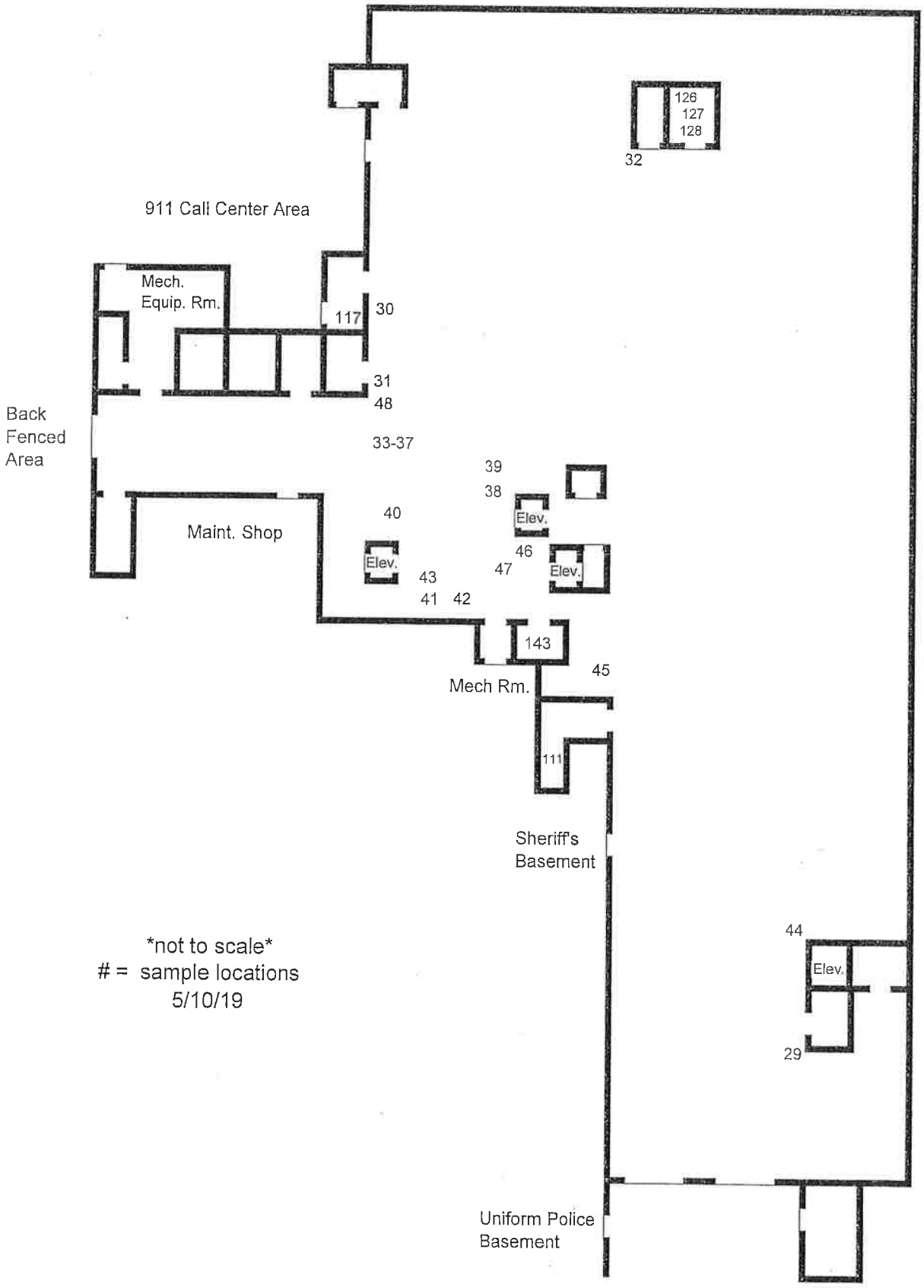
REPRESENTATIVE LEAD BASED PAINT SURVEY
PORTSMOUTH CIVIC COMPLEX
PORTSMOUTH, VA

Reading No	Time	Component	Substrate	Side	Condition	Color	Site	Floor	Room	Results	PbC	Units
151	4/26/2019 14:12	wall	DRYWALL	B	INTACT	WHITE	magistrates office	FIRST	lobby	Negative	< LOD	mg / cm ^2
152	4/26/2019 14:12	wall	DRYWALL	C	INTACT	BLUE	magistrates office	FIRST	lobby	Negative	< LOD	mg / cm ^2
153	4/26/2019 14:13	wall	DRYWALL	C	INTACT	BLUE	magistrates office	FIRST	lobby	Negative	< LOD	mg / cm ^2
154	4/26/2019 14:13	wall	DRYWALL	D	INTACT	WHITE	magistrates office	FIRST	lobby	Negative	< LOD	mg / cm ^2
155	4/26/2019 14:15	doorframe	METAL	C	INTACT	gray	magistrates office	FIRST	lobby	Negative	< LOD	mg / cm ^2
156	4/26/2019 14:16	doorframe	METAL	C	INTACT	gray	magistrates office	FIRST	lobby	Negative	< LOD	mg / cm ^2
157	**4/26/2019 14:38**	**CALIBRATION**								Negative	< LOD	mg / cm ^2
158	4/26/2019 14:38	CALIBRATION								**Positive**	**1.1**	**mg / cm ^2**
159	**4/26/2019 14:38**	**CALIBRATION**								Negative	0.7	mg / cm ^2
160	4/30/2019 11:15	Shutter Cal								**Positive**	**3.6**	**mg / cm ^2**
161	**4/30/2019 11:16**	**calibration**									5.46	cps
162	4/30/2019 11:16	calibration								**Positive**	**1.2**	**mg / cm ^2**
163	**4/30/2019 11:16**	**calibration**								Negative	0.8	mg / cm ^2
164	4/30/2019 11:23	WALL	CONCRETE	B	INTACT	WHITE	POLICE EVIDENC	FIRST		**Positive**	**2.9**	**mg / cm ^2**
165	4/30/2019 11:24	PILLAR	CONCRETE	B	INTACT	WHITE	POLICE EVIDENC	FIRST		Negative	< LOD	mg / cm ^2
166	4/30/2019 11:25	DOOR FRAME		C	INTACT	GRAY	POLICE EVIDENC	FIRST		Negative	< LOD	mg / cm ^2
167	4/30/2019 11:26	DOOR		C	INTACT	GRAY	POLICE EVIDENC	FIRST		Negative	< LOD	mg / cm ^2
168	4/30/2019 11:30	WALL		B	INTACT	WHITE	POLICE ADMIN O	FIRST		Negative	< LOD	mg / cm ^2
169	4/30/2019 11:31	WALL	CONCRETE	B	INTACT	WHITE	POLICE ADMIN O	FIRST		Negative	< LOD	mg / cm ^2
170	4/30/2019 11:32	WINDOW TRIM	METAL	C	INTACT	GRAY	POLICE ADMIN O	FIRST		Negative	< LOD	mg / cm ^2
171	4/30/2019 11:32	DOOR TRIM	METAL	C	INTACT	GRAY	POLICE ADMIN O	FIRST		Negative	< LOD	mg / cm ^2
172	4/30/2019 11:37	WALL	CONCRETE	B	INTACT	WHITE	J&D BLDG	SECOND		Negative	< LOD	mg / cm ^2
173	4/30/2019 11:40	WALL	CONCRETE	C	INTACT	WHITE	J&D BLDG	SECOND		Negative	< LOD	mg / cm ^2
174	4/30/2019 11:41	WALL	CONCRETE	C	INTACT	WHITE	J&D BLDG	SECOND		Negative	< LOD	mg / cm ^2
175	**4/30/2019 11:41**	**LADDER**	**METAL**	**D**	**INTACT**	**WHITE**	**J&D BLDG**	**SECOND**	STAIRWELL	Negative	< LOD	mg / cm ^2
176	4/30/2019 11:43	DOOR TRIM	METAL	D	INTACT	WHITE	J&D BLDG	SECOND	**STAIRWELL**	**Positive**	**13.4**	**mg / cm ^2**
177	4/30/2019 11:47	WALL	CONCRETE	C	INTACT	WHITE	J&D BLDG	FIRST	STAIRWELL	Negative	< LOD	mg / cm ^2
178	4/30/2019 11:48	WALL	DRYWALL	D	INTACT	WHITE	J&D BLDG	FIRST	HALL	Negative	< LOD	mg / cm ^2
179	4/30/2019 11:50	DOOR TRIM	METAL	B	INTACT	WHITE	J&D BLDG	FIRST	HALL	Negative	< LOD	mg / cm ^2
180	4/30/2019 11:53	DOOR TRIM	METAL	B	INTACT	BLUE	J&D BLDG	FIRST	HALL	Negative	< LOD	mg / cm ^2
181	4/30/2019 11:54	FLOOR	CONCRETE	B	INTACT	GRAY	J&D BLDG	FIRST	HALL	Negative	< LOD	mg / cm ^2
182	4/30/2019 11:58	WALL	DRYWALL	B	INTACT	GRAY	J&D BLDG	FIRST	STAIRWELL	Negative	< LOD	mg / cm ^2
183	4/30/2019 11:59	WALL	DRYWALL	B	INTACT	WHITE	J&D BLDG	FIRST	UNIFORM PATROL OFFICES	Negative	< LOD	mg / cm ^2
184	4/30/2019 12:00	DOOR TRM	METAL	B	INTACT	GRAY	J&D BLDG	FIRST	UNIFORM PATROL OFFICES	Negative	< LOD	mg / cm ^2
185	4/30/2019 12:07	WALL	DRYWALL	B	INTACT	WHITE	J&D BLDG	FIRST	UNIFORM PATROL OFFICES	Negative	< LOD	mg / cm ^2
186	**4/30/2019 12:12**	**CALIBRATE**							MAGISTRATES OFFICE	Negative	< LOD	mg / cm ^2
187	4/30/2019 12:12	CALIBRATE								**Positive**	**1.8**	**mg / cm ^2**
188	**4/30/2019 12:12**	**CALIBRATE**								Negative	0.7	mg / cm ^2
										Positive	**4.7**	**mg / cm ^2**

APPENDIX C

ASBESTOS INSPECTION SAMPLE LOCATION DIAGRAMS

Representative Asbestos Inspection
Sample Location Diagram
Sheriff's Garage Area
Portsmouth, VA



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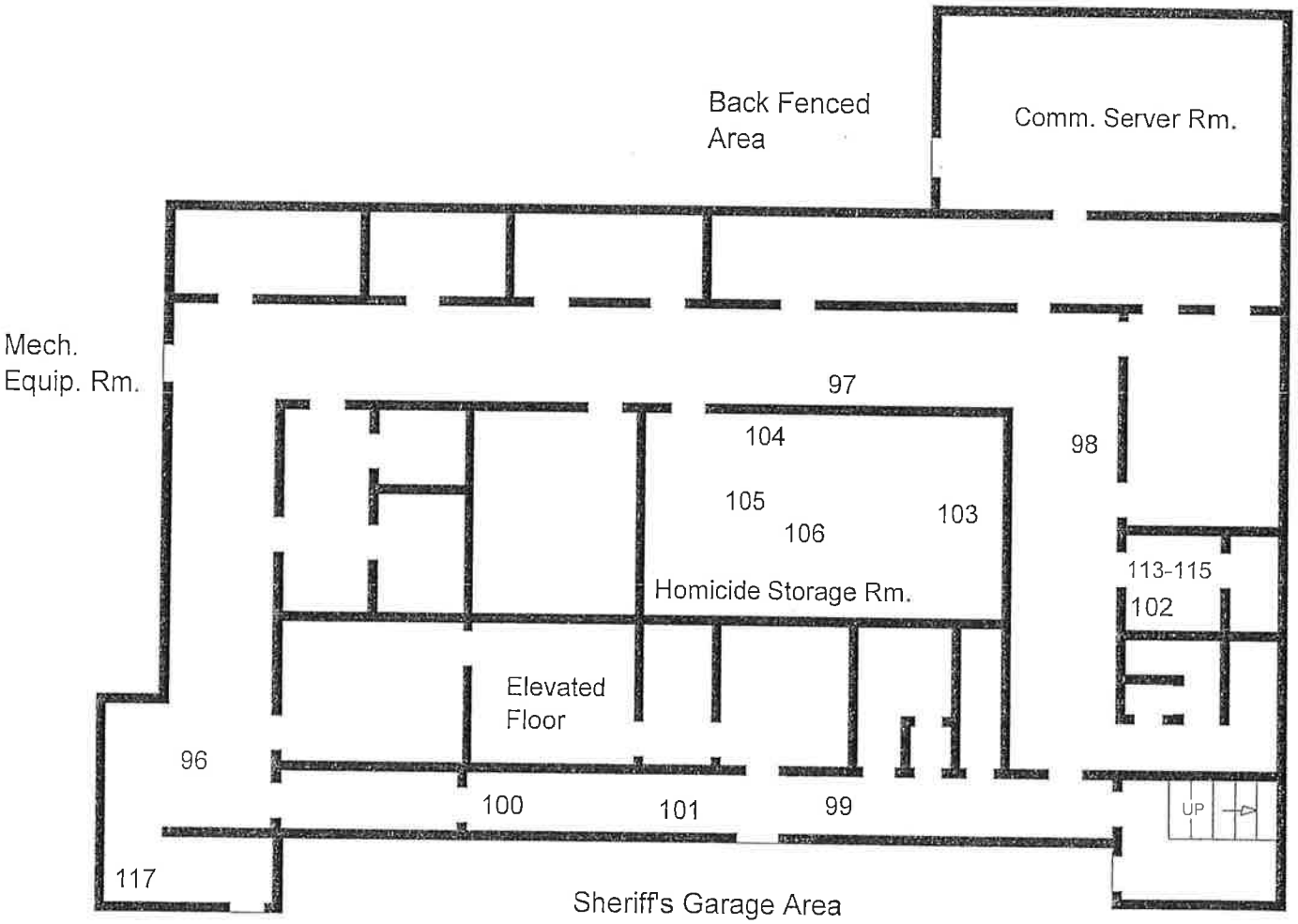
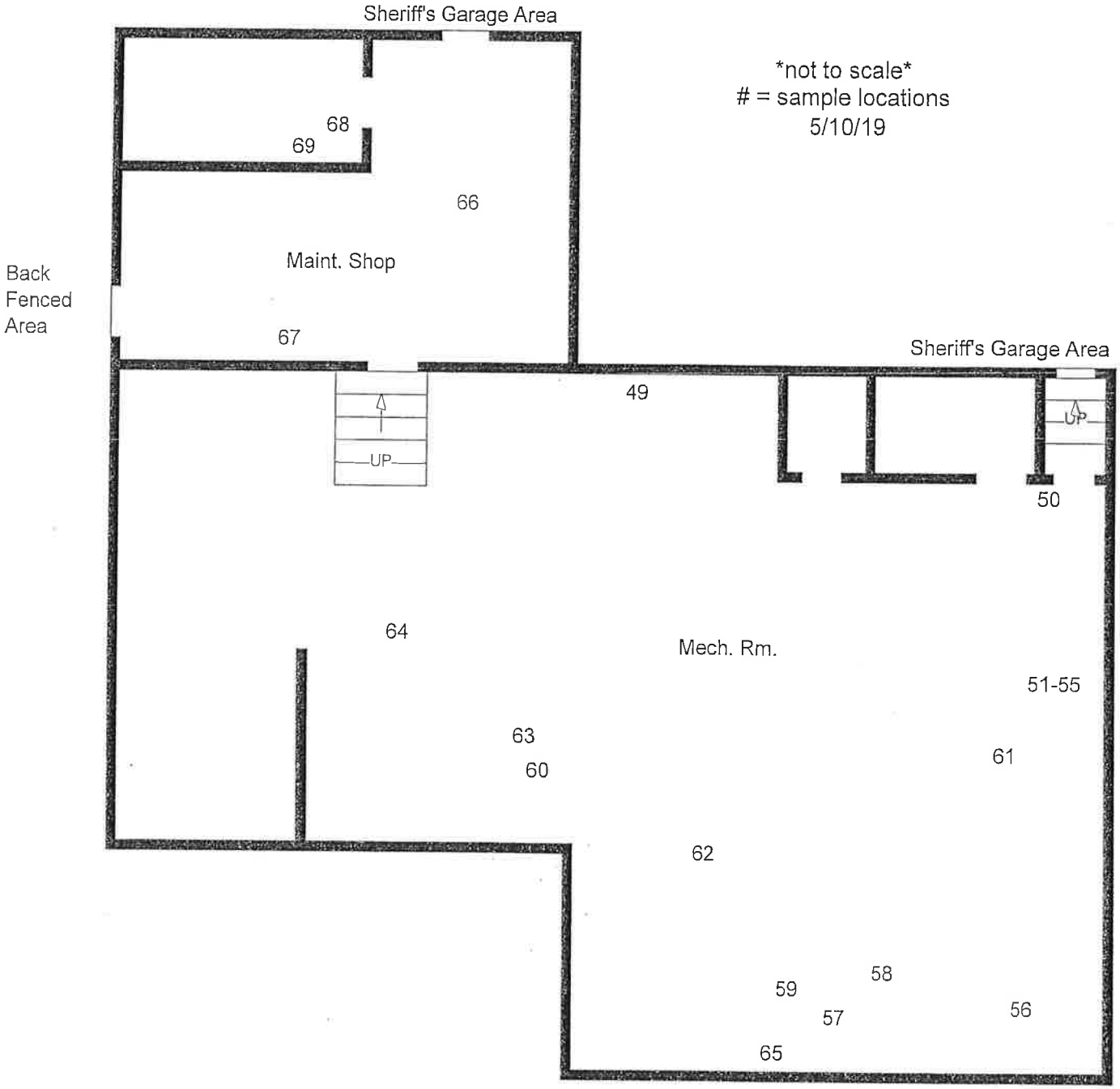
Representative Asbestos Inspection
Sample Location Diagram
911 Call Center Area
Portsmouth, VA



not to scale
= sample locations
5/10/19

Representative Asbestos Inspection
Sample Location Diagram
Maint. Shop / Mech. Room Area
Portsmouth, VA



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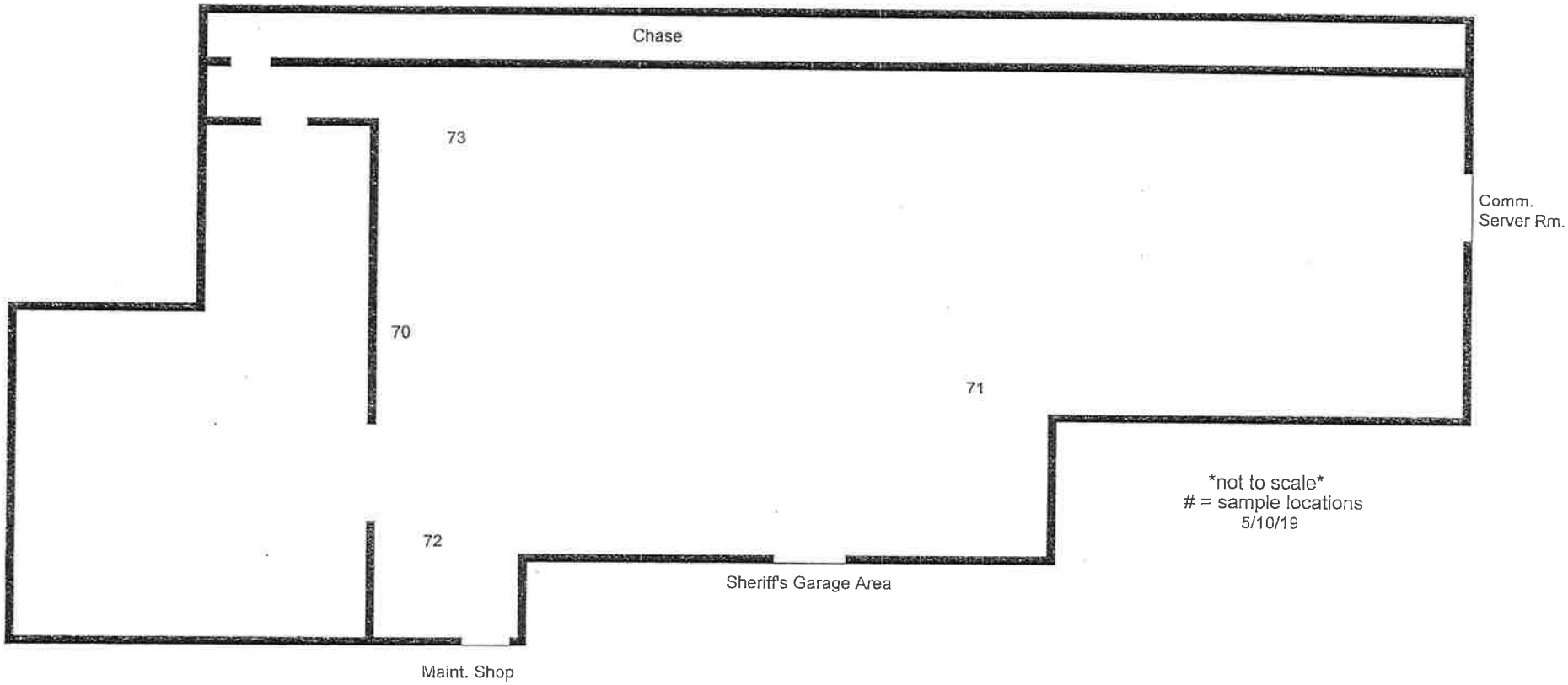
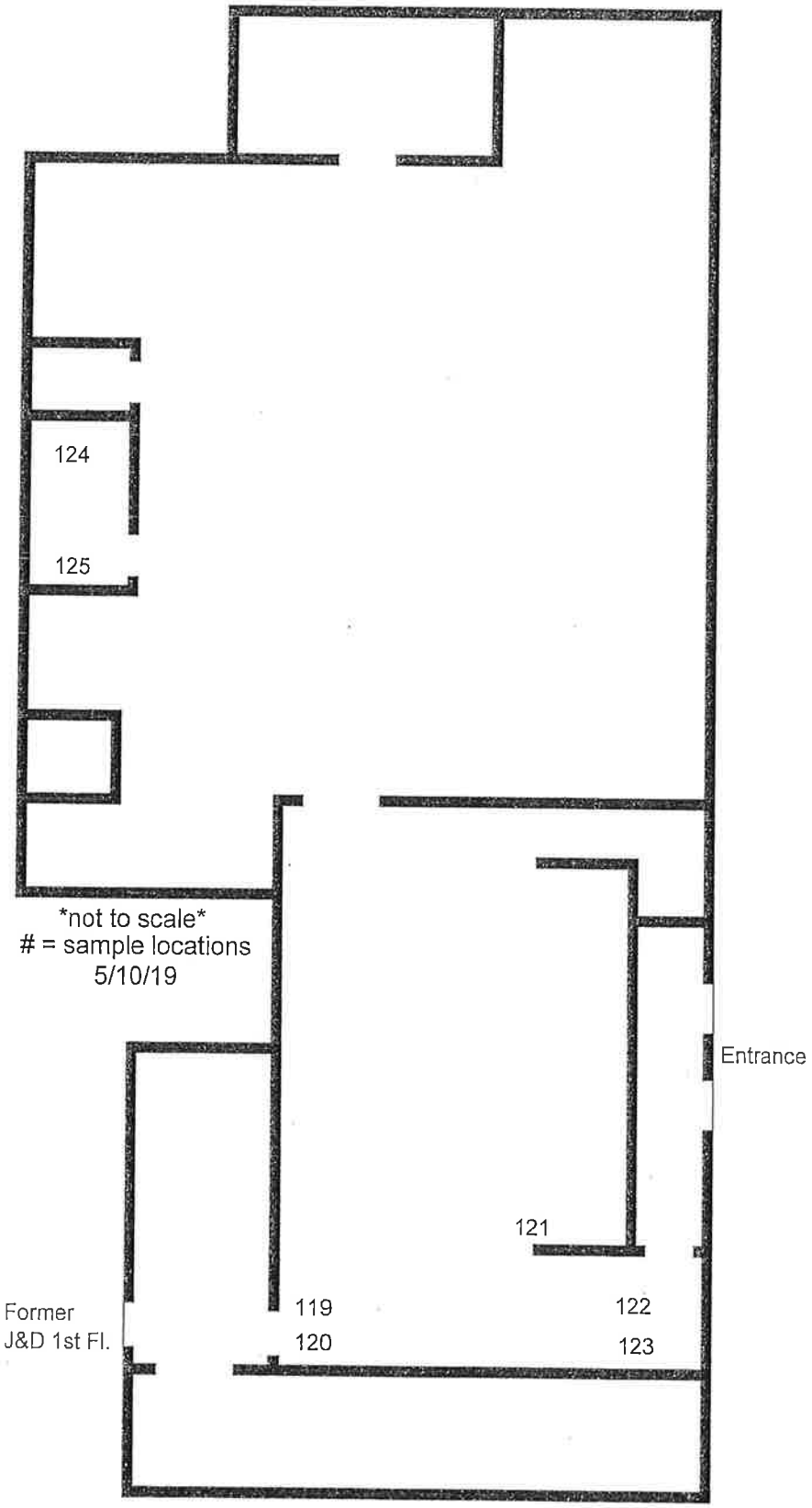
Representative Asbestos Inspection
Sample Location Diagram
Back Fenced Area within Sheriff's Garage Area
Portsmouth, VA



Representative Asbestos Inspection
Sample Location Diagram
Former J&D Police 1st Fl.
Portsmouth, VA



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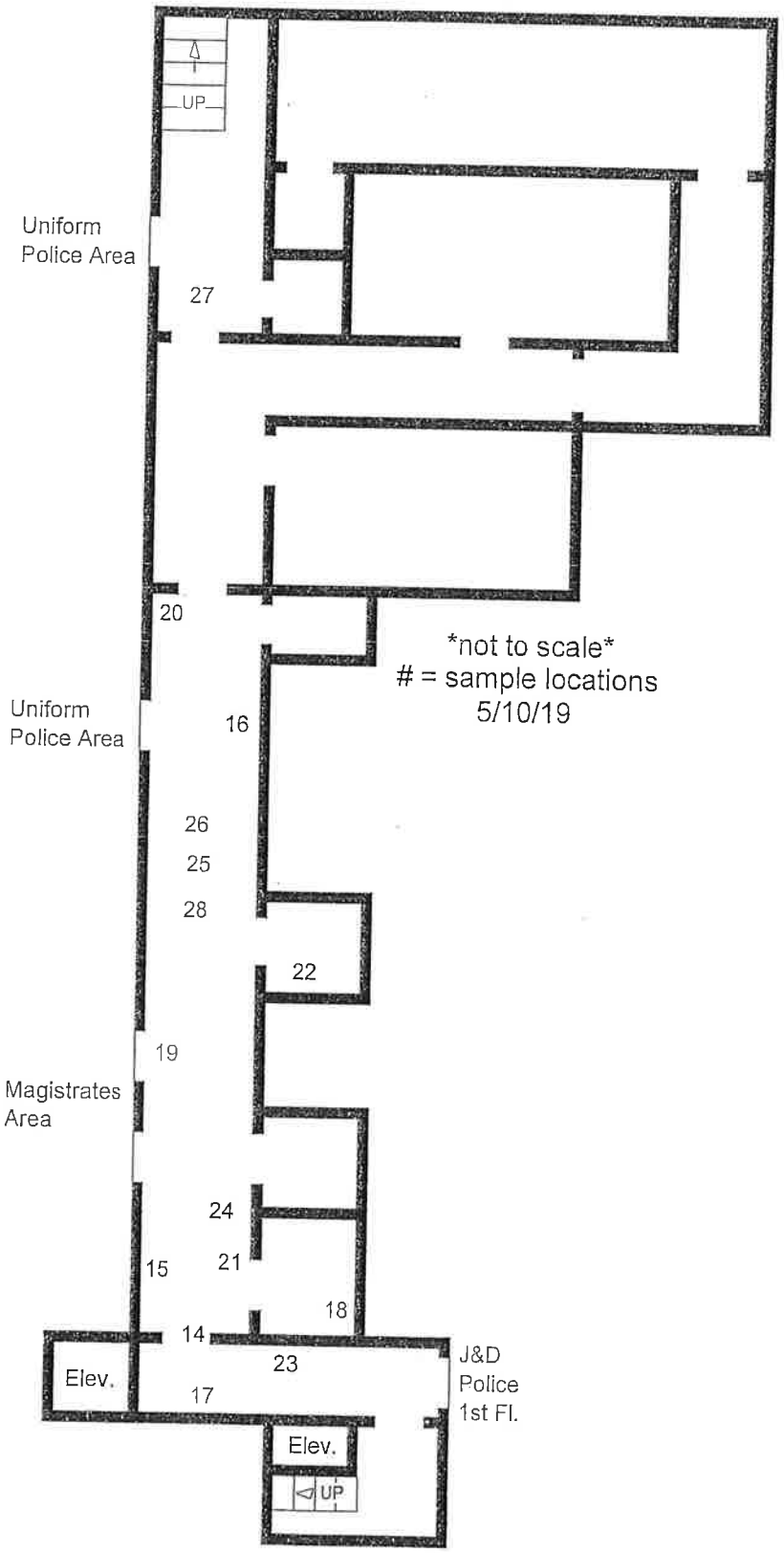
Representative Asbestos Inspection
Sample Location Diagram
Former J&D 1st Fl.
Portsmouth, VA



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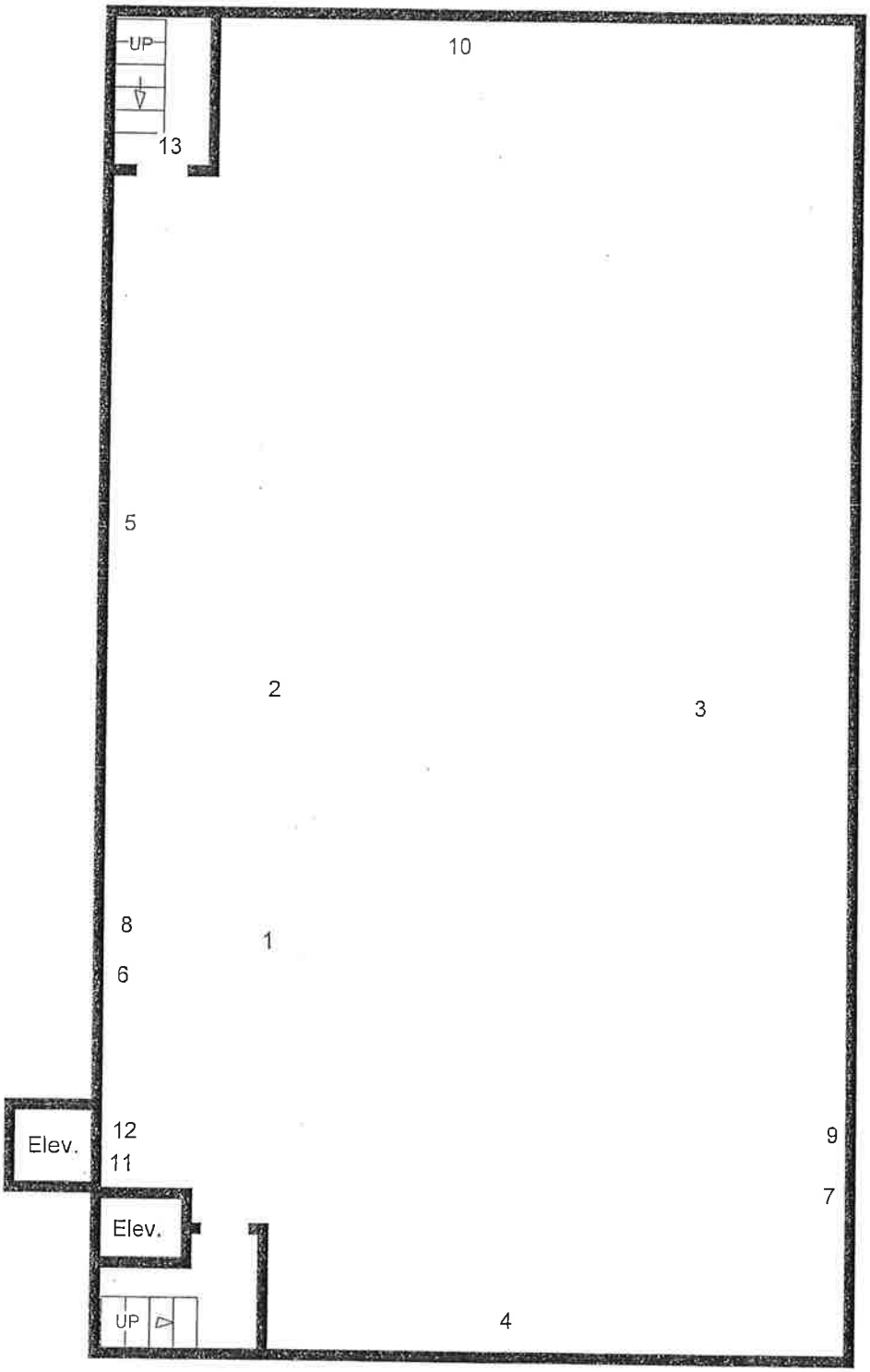
Representative Asbestos Inspection
Sample Location Diagram
Former J&D 2nd Fl.
Portsmouth, VA



not to scale
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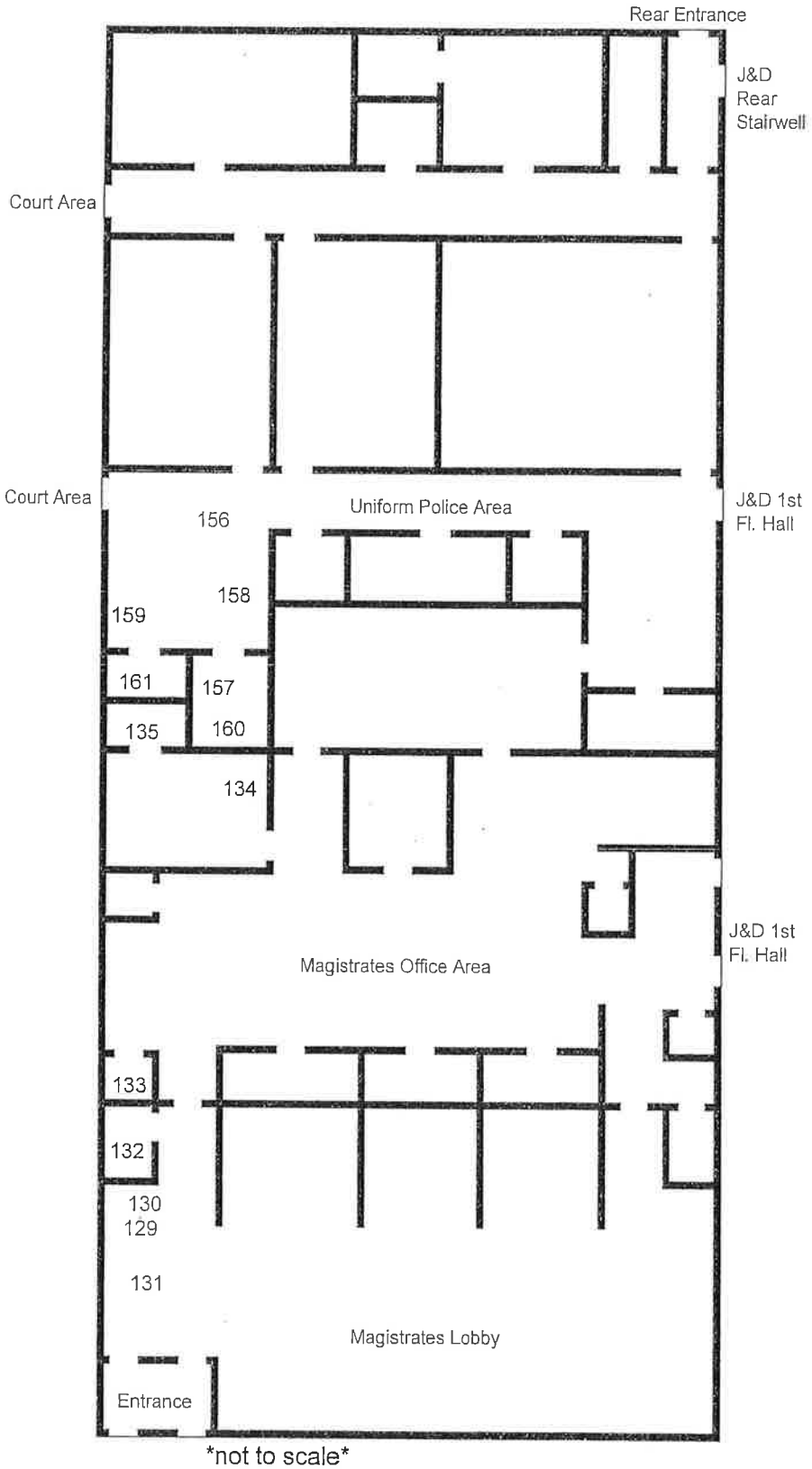
Representative Asbestos Inspection
Sample Location Diagram
Uniform Police Area / Magistrates Office Area
Portsmouth, VA



not to scale
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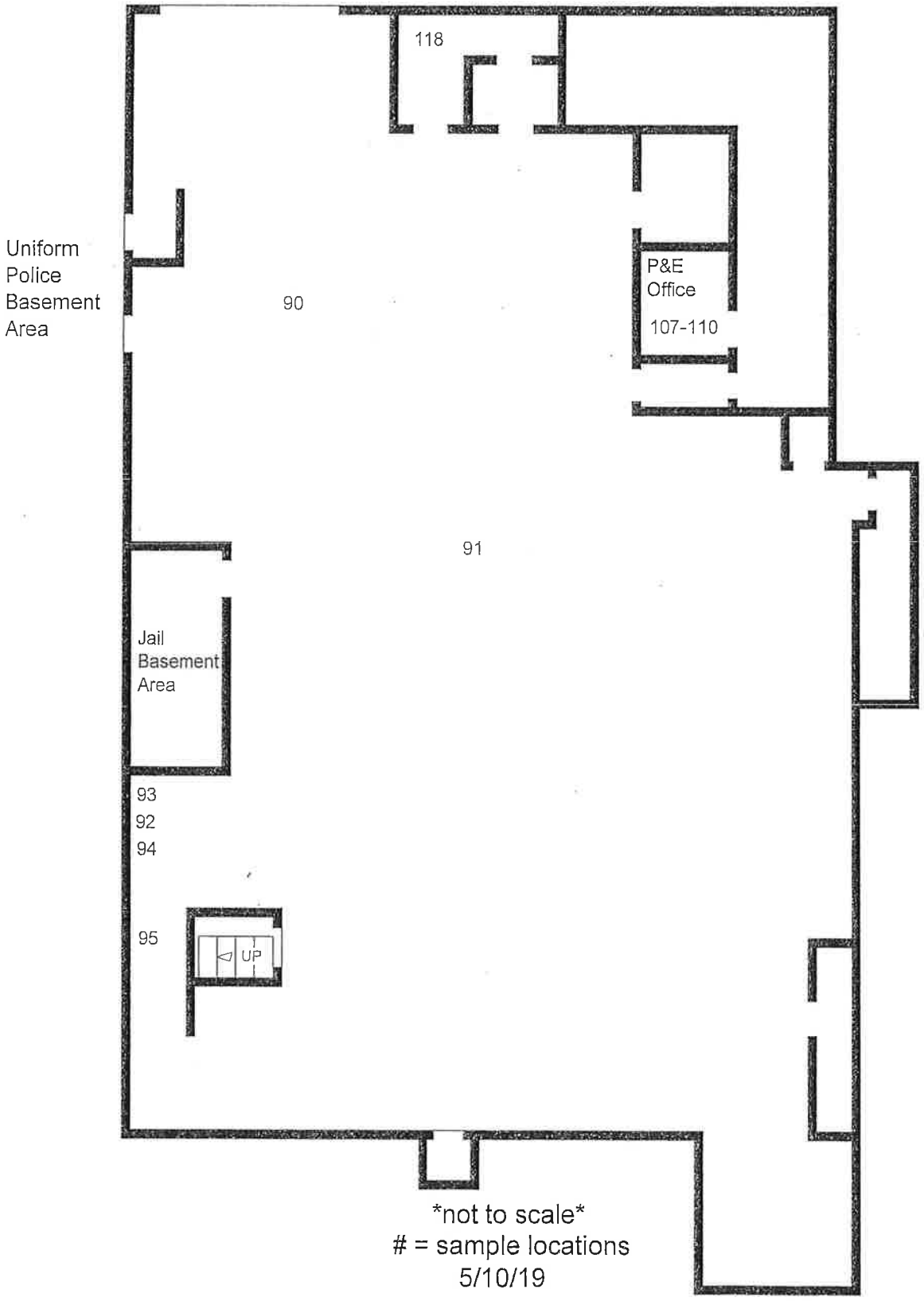
Representative Asbestos Inspection
Sample Location Diagram
Police Garage Area
Portsmouth, VA



not to scale
= sample locations
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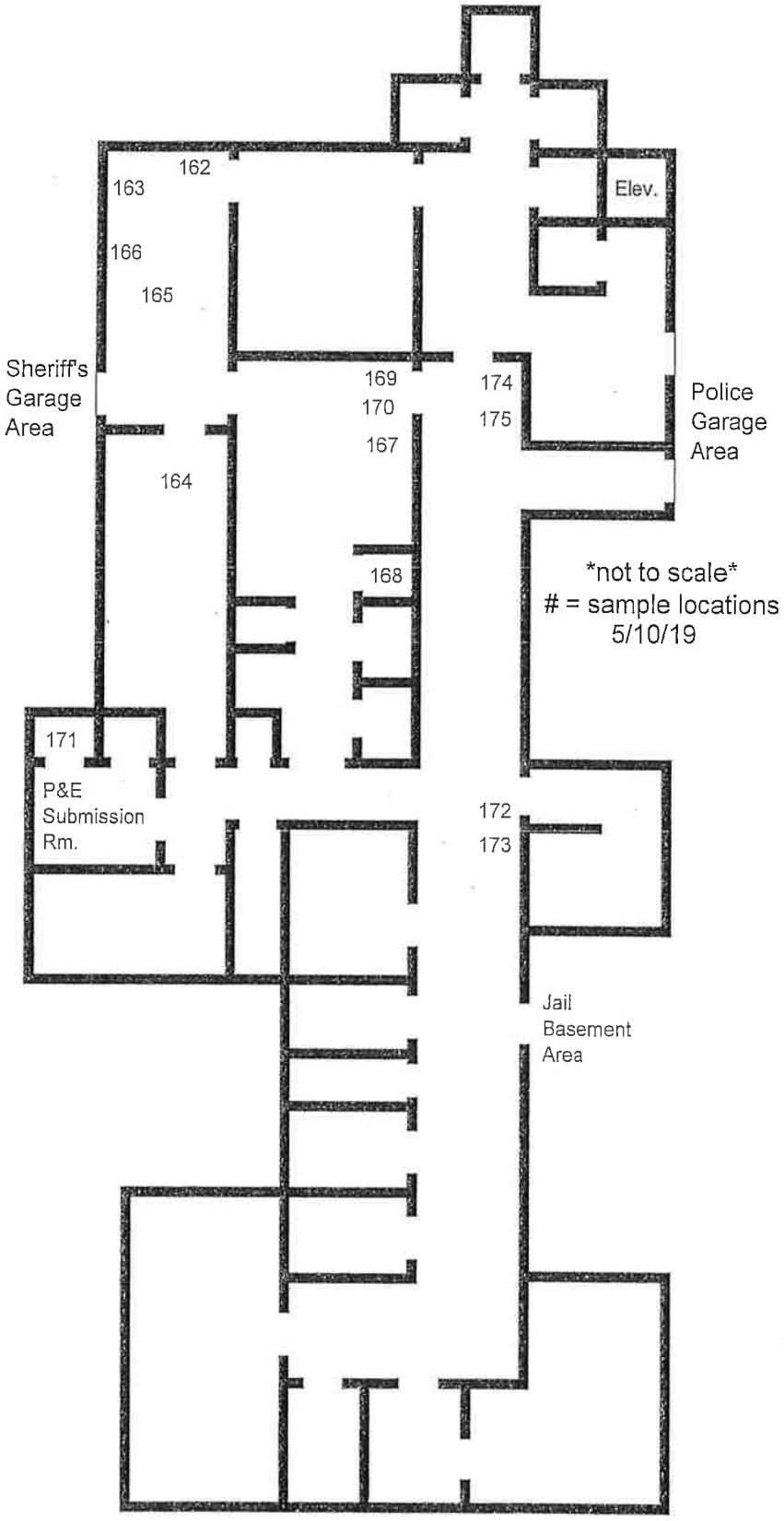
Representative Asbestos Inspection
Sample Location Diagram
Uniform Patrol Basement Area
Portsmouth, VA



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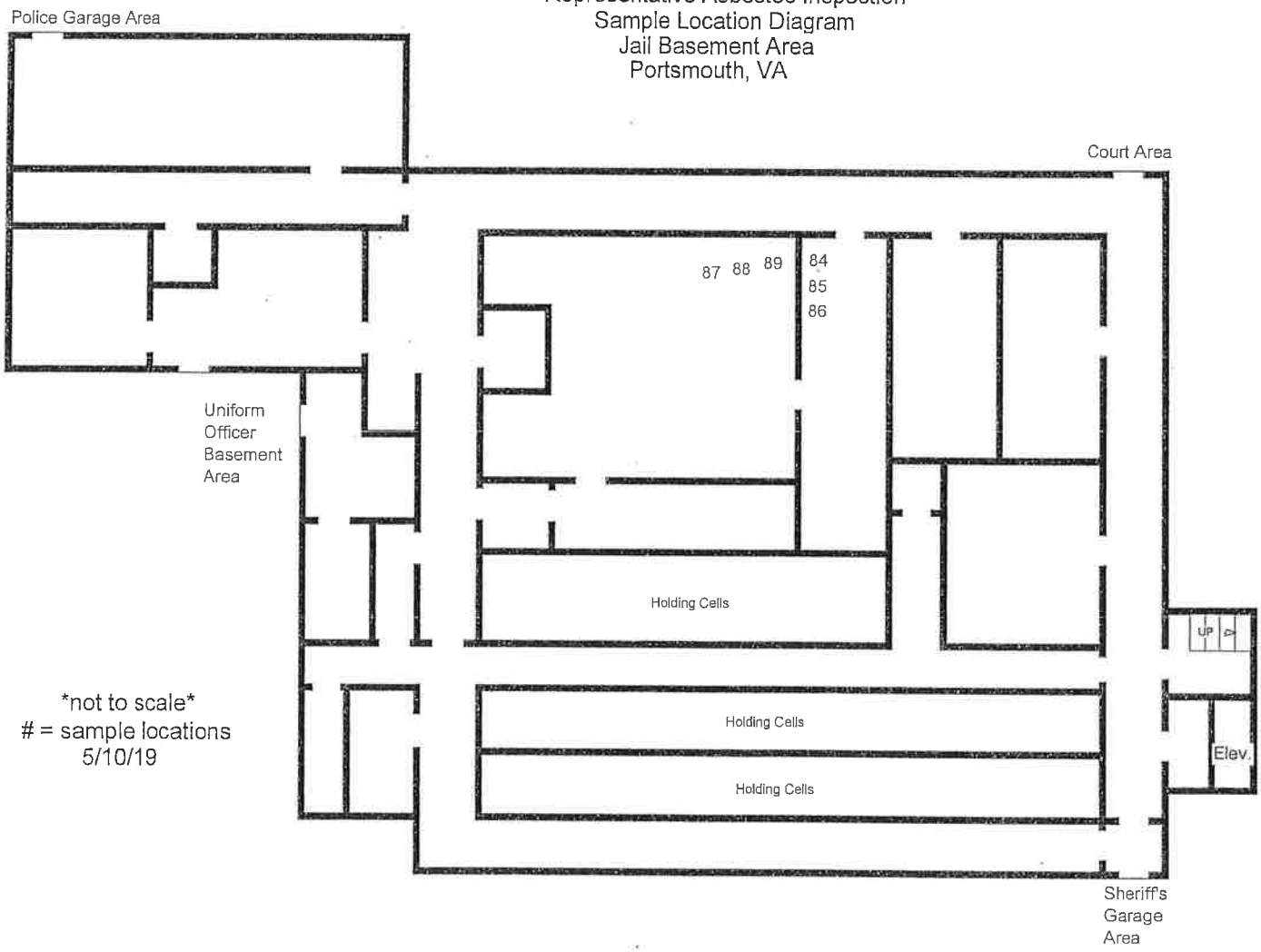
Representative Asbestos Inspection
Sample Location Diagram
Jail Basement Area
Portsmouth, VA



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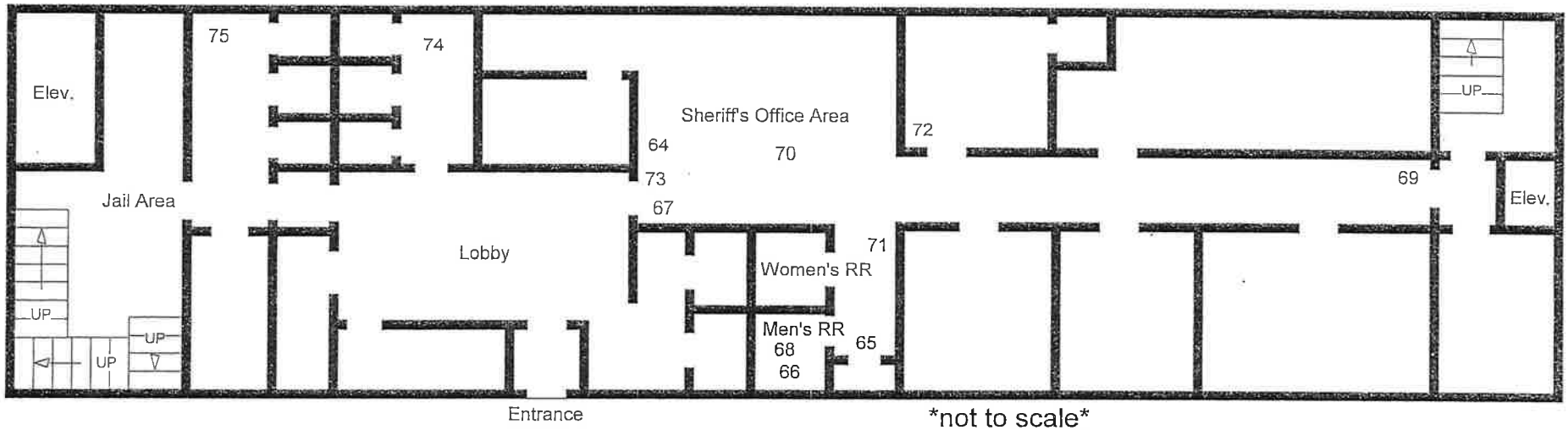
Representative Asbestos Inspection
Sample Location Diagram
1st Fl. Jail / Sheriff's Office Area
Portsmouth, VA



not to scale
= sample locations
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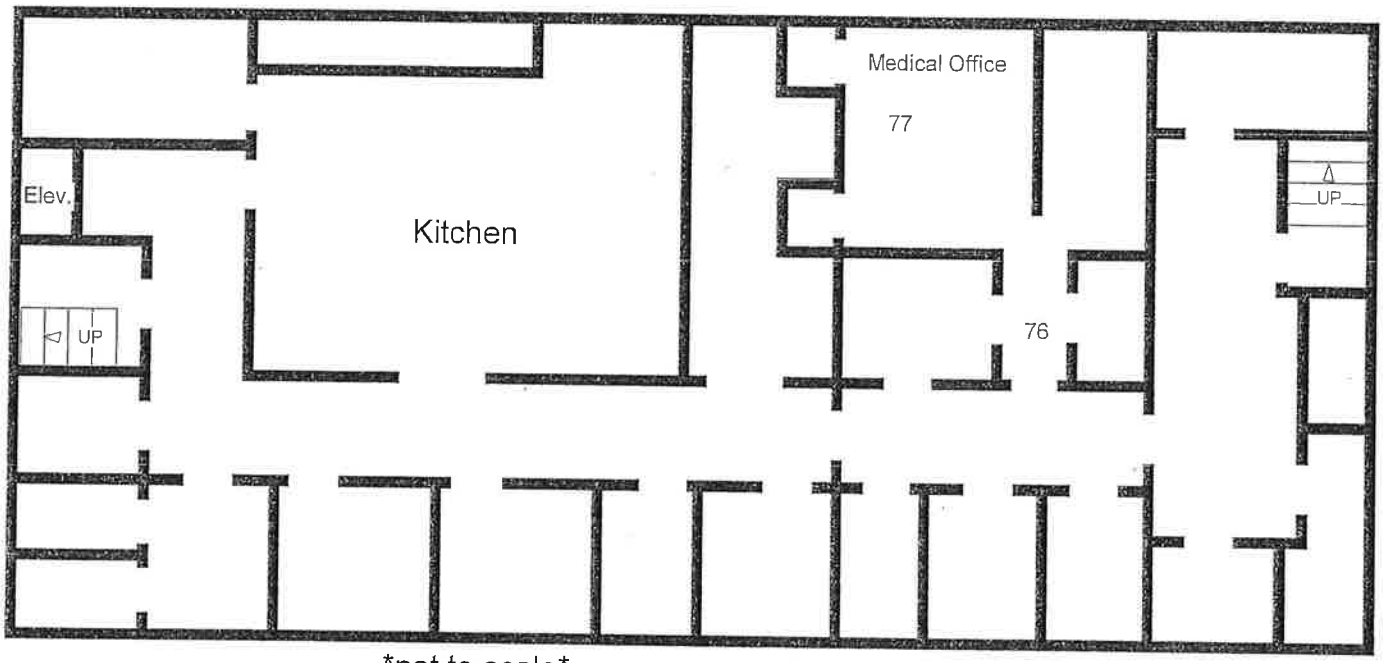
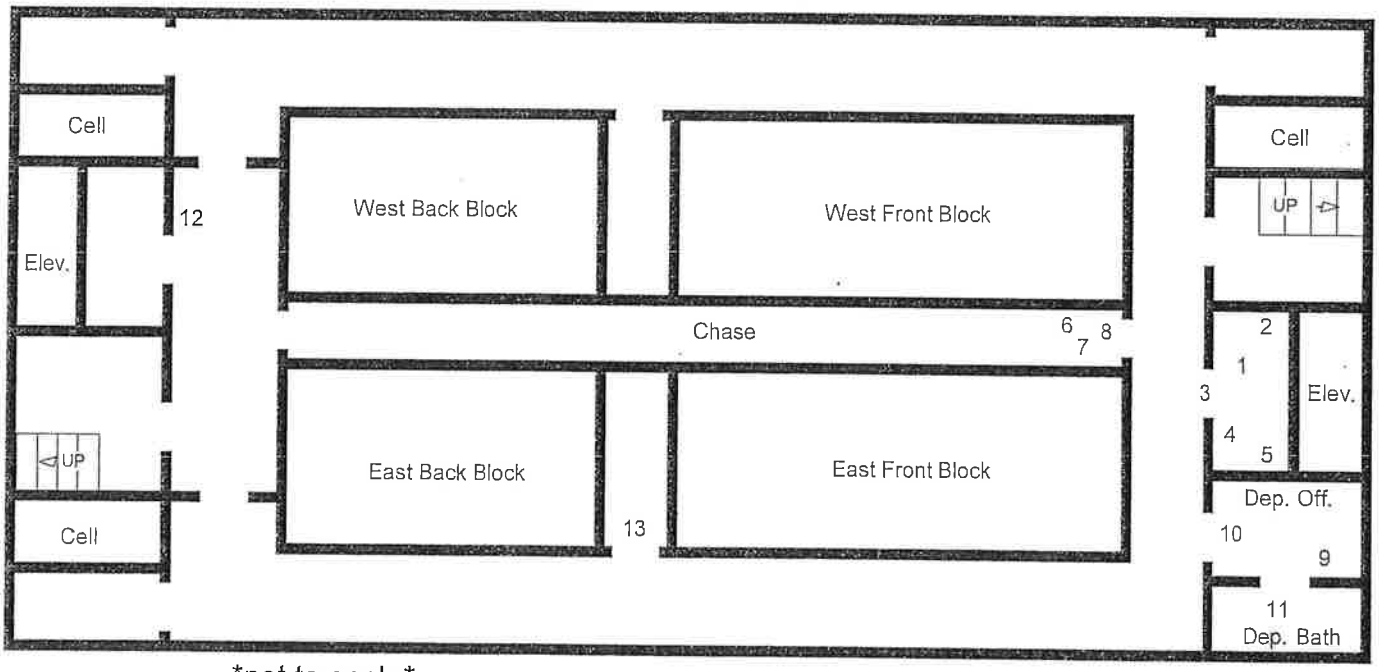
Representative Asbestos Inspection
Sample Location Diagram
2nd Fl. Jail
Portsmouth, VA



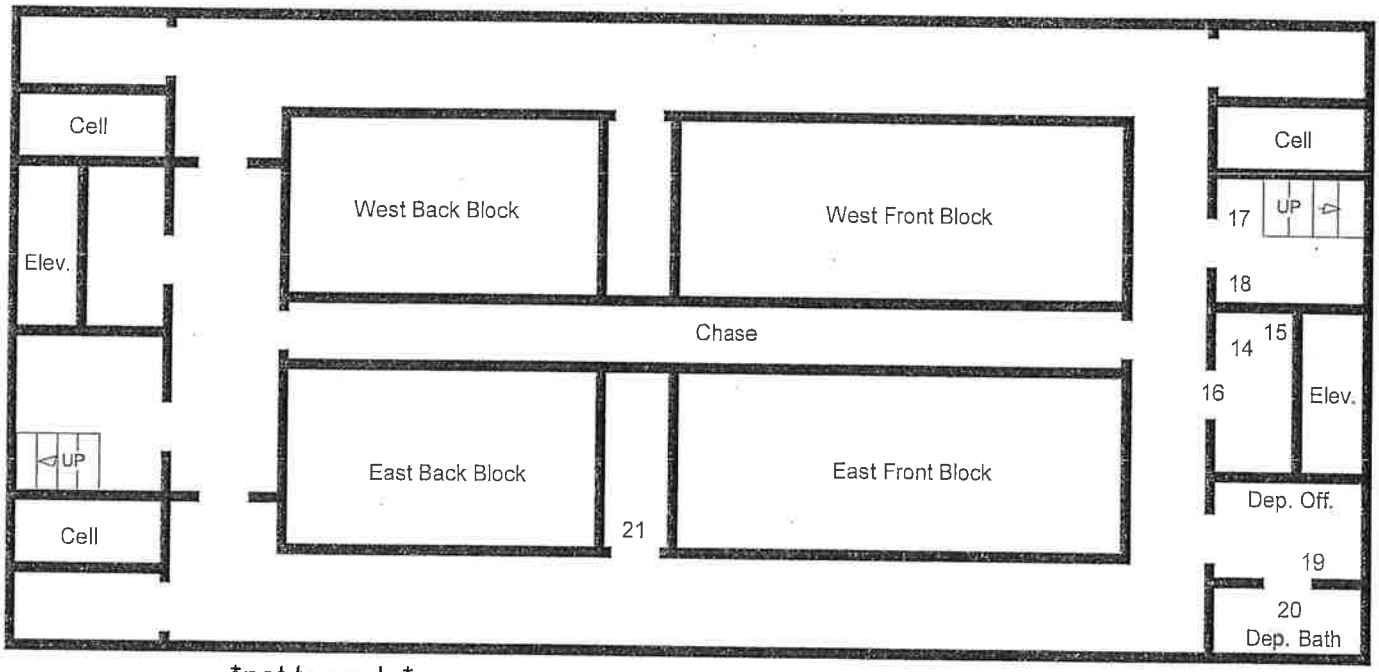
not to scale
= sample location
5/10/19

Representative Asbestos Inspection
Sample Location Diagram
3rd Fl. Jail
Portsmouth, VA



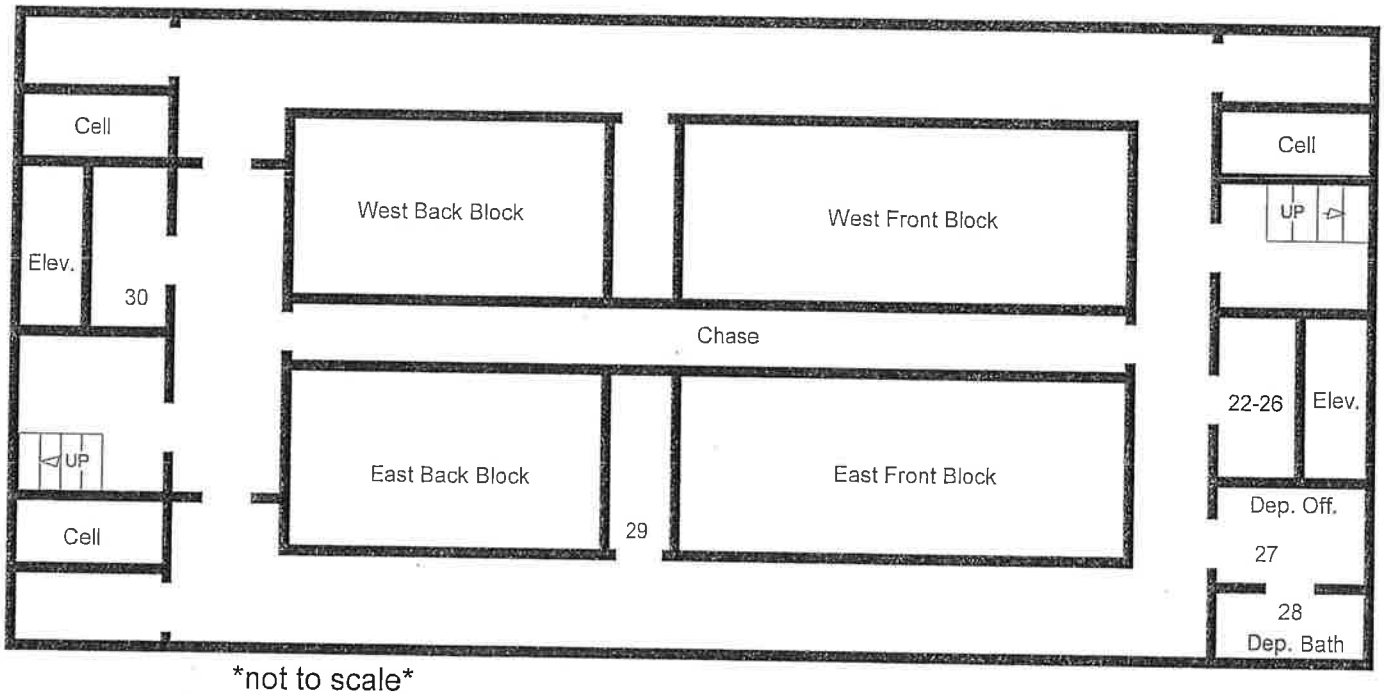
not to scale
= sample locations
5/10/19

Representative Asbestos Inspection
Sample Location Diagram
4th Fl. Jail
Portsmouth, VA



not to scale
= sample locations
5/10/19

Representative Asbestos Inspection
Sample Location Diagram
5th Fl. Jail
Portsmouth, VA



not to scale
= sample locations
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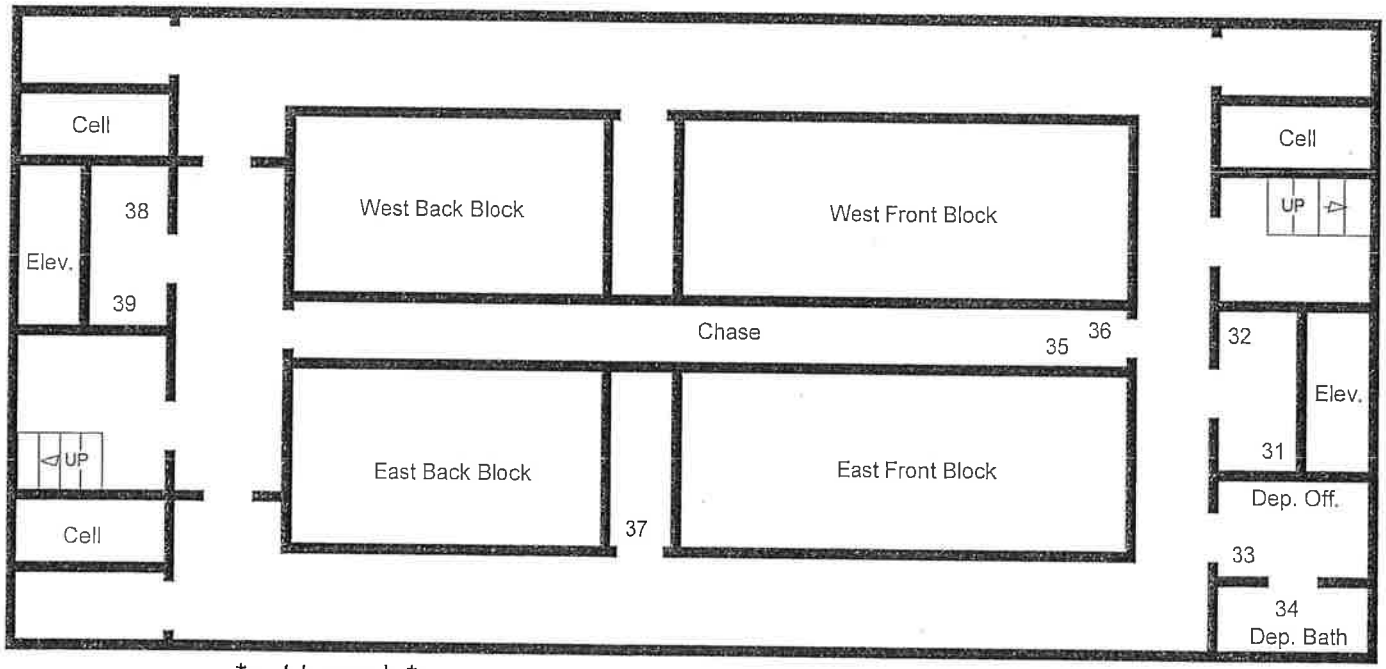
Representative Asbestos Inspection
Sample Location Diagram
6th Fl. Jail
Portsmouth, VA



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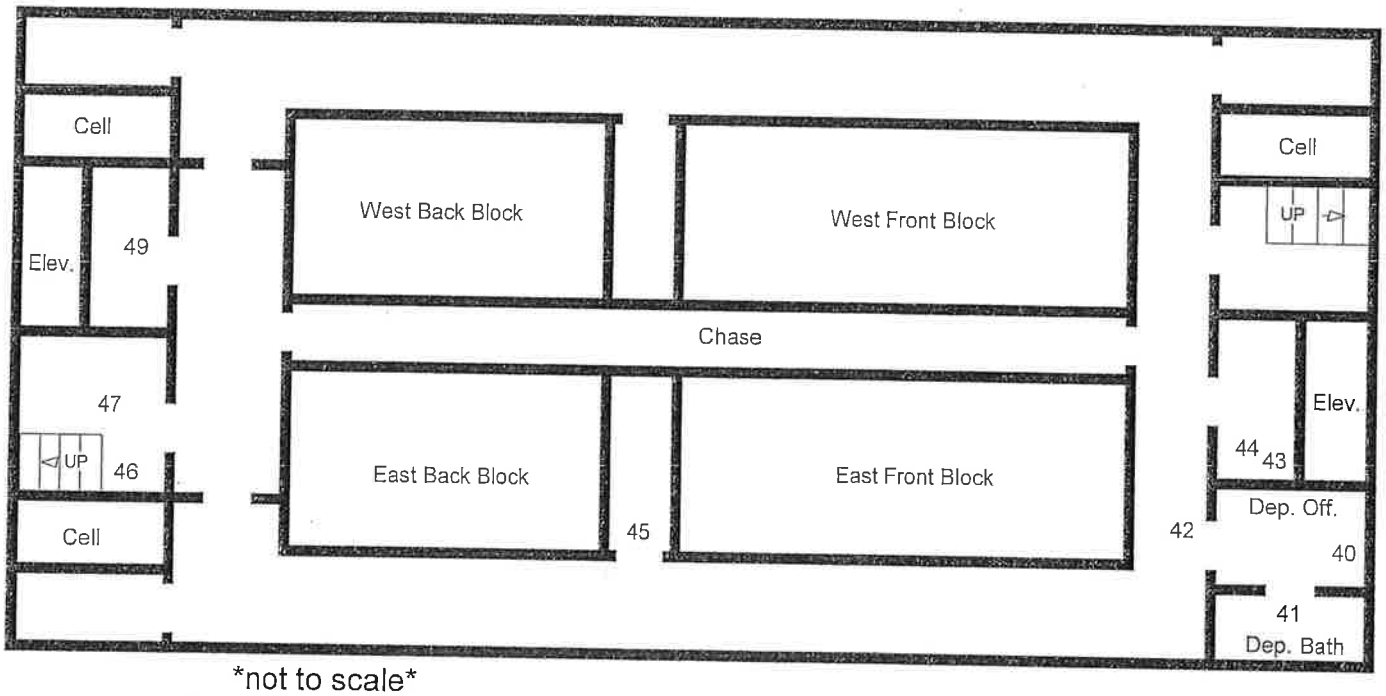
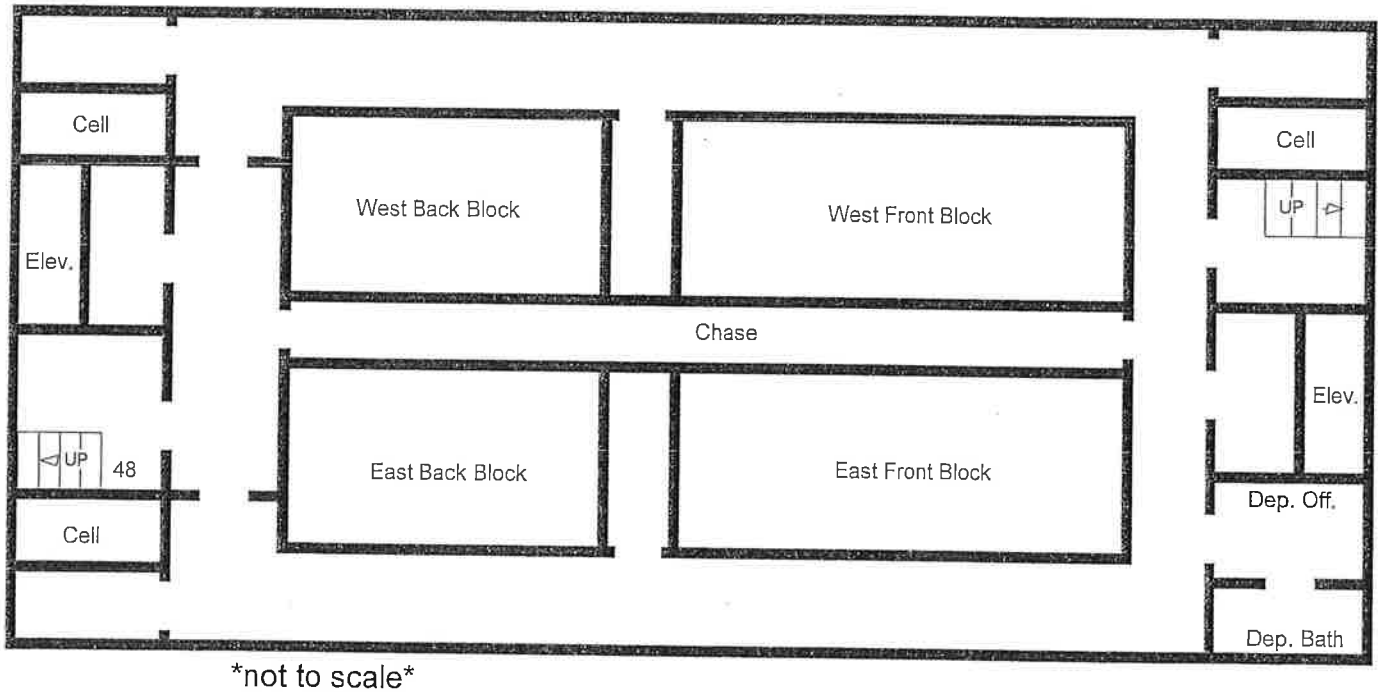
Representative Asbestos Inspection
Sample Location Diagram
7th Fl. Jail
Portsmouth, VA



not to scale
= sample locations
5/10/19

Representative Asbestos Inspection
Sample Location Diagram
8th Fl. Jail
Portsmouth, VA



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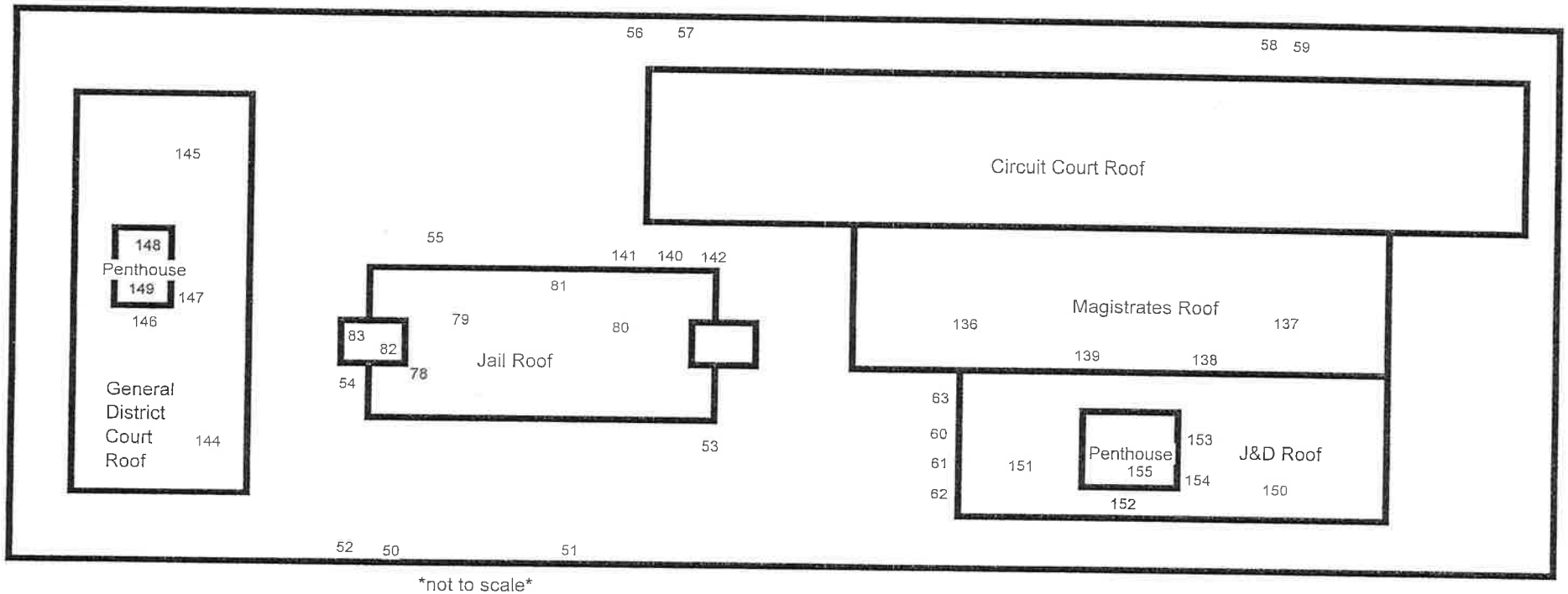
Representative Asbestos Inspection
Sample Location Diagram
Roofs and Exterior Areas
Portsmouth, VA



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CIVIC CENTER COMPLEX
PORTSMOUTH VIRGINIA

INSPECTION REPORT

2013

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APPLIED
LABORATORY
SERVICES

HAZARDOUS MATERIALS INSPECTION

FORMER
GENERAL DISTRICT
AND
CIRCUIT COURT BUILDINGS
PORTSMOUTH, VIRGINIA

Prepared For
The City of Portsmouth
Department of Engineering
801 Crawford Street
Portsmouth, Virginia 23704

Prepared By:
Applied Laboratory Services
4101 Granby Street, Suite 404
Norfolk, Virginia 23504

Report Number: ALS 10061-13
June 19, 2013

Applied Laboratory Services, conduced a Hazardous Materials Inspection on May 7, 2013 through May 17, 2013, of the former General District and Circuit Court Buildings, Portsmouth, Virginia in support of the future renovation activities of each building.

This report was compiled by:

Paul D. Thomas

June 19, 2013
Date

VA. Asbestos Designer License #3305000966
VA. Asbestos Inspector License # 3303002215
VA. Asbestos Management Planner License # 3304001330
VA. Lead Designer License # 3357000198
VA. Lead inspector License #3355000025

If there are any questions concerning this report, or if we may be of further assistance to your office, please feel free to contact our office at (757) 623-0121.

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GENERAL DISTRICT COURT BLDG.

APPENDIX B - ASBESTOS ANALYTICAL RESULTS
CIRCUIT COURT BLDG.

APPENDIX C – SAMPLE LOCATION DRAWINGS
GENERAL DISTRICT COURT BLDG.

APPENDIX D – SAMPLE LOCATION DRAWINGS
CIRCUIT COURT BLDG.

SUMMARY

ASBESTOS

The inspection included a visual assessment and representative bulk sampling of suspected asbestos containing materials within each of the buildings. Each building consists of two floors, constructed of block and steel structural framing, brick and built up roofs. Asbestos suspected interior building materials included fireproofing, thermal system insulations, fire doors, acoustical ceiling tiles, ceiling plaster, wallboard, piping insulation, heating and air conditioning ventilation ducts, flooring, sealants and mastics adhesives. Asbestos suspected exterior building materials included the roof of the Circuit Court Building. The second floor and roof of the General District Court Building are excluded from this report as all Asbestos Containing Materials were abated in those areas as part of a previous renovation.

The inspection was performed by Commonwealth of Virginia Licensed Asbestos Inspector Mr. Paul D. Thomas. The purpose of the asbestos inspection was to identify and sample all suspected asbestos containing materials (ACM's). Assess and identify any of these materials, which are Asbestos Containing Materials. This inspection entailed the use of destructive sampling techniques; therefore all materials accessible by such techniques were inspected, tested and assessed. If during selective demolition activities suspect materials are encountered that were not previously assessed, materials should be tested for asbestos.

LEAD

Painted surfaces within the two buildings were found to be intact and in good condition at the time of the inspection. No testing of painted surfaces was conducted, however painted surfaces are assumed to contain levels of Lead in Paint.

POLYCHLORINATED BIPHENYLS (PCB)/MERCURY TUBES & THERMOSTATS

The continued manufacture of lighting ballasts containing PCB's was banned by the US Environmental Protection Agency in 1979. All lighting fixtures manufactured prior to January of 1979 must be clearly marked as "Non-PCB" or be treated as PCB containing. ALS estimated a combined total of 899 PCB light ballast within the two buildings. Fluorescent Light Tubes associated with each light fixture was assumed to contain Mercury, ALS estimated a combined total of 1,735 fluorescent light bulbs in the buildings. An estimated combined total of 74 Mercury Thermostats were identified with the buildings.

ASBESTOS RESULTS SUMMARY

Friable Asbestos Containing Building Materials were identified during the representative asbestos inspection and PLM analysis of the representative bulk samples of suspected asbestos containing materials. Friable asbestos content was identified in spray applied fireproofing insulation, mudded pipe fitting insulation, fire door insulation, light fixture heat shield reflective backing insulation and insulation board material associated with a vault door.

Note: The asbestos containing spray applied fireproofing insulation material has been applied to overhead ceilings and structural I-Beams. The original spray application resulted in overspray contamination to surrounding structural surfaces, void spaces, utility components and equipment. The asbestos containing spray applied insulation overspray was identified on perimeter walls, electrical conduit, HVAC duct work, piping, hangers and the top surfaces of light fixtures. The asbestos containing spray applied fireproofing was significantly damaged with scattered areas of delamination throughout the building overhead areas. The delaminated fireproofing materials were noted on top of all acoustical ceilings, all smooth plaster ceilings and all ceiling mounted light fixtures.

In many areas, CMU block walls and framed drywall systems extending above the drop ceilings. These wall structure systems were open along the top edge and did not include top edge caps. Due to this situation, the interior of all CMU block walls and drywall wall systems extending above ceilings are presumed to be significantly contaminated with asbestos containing fireproofing. Based on previous asbestos abatement records, the asbestos containing spray applied fireproofing was removed from elevator shafts in both court buildings. The fireproofing insulation was reported as completely removed from the overhead of the first floor court room in the General District Court Building. All ceiling tiles, light fixtures and utility supply components such as HVAC ductwork were replaced as part of the limited renovation conducted in the General District Court, 1st floor courtroom area.

Non-friable Asbestos Containing Building Materials were identified during the representative asbestos inspection and PLM analysis of the representative bulk samples of suspected asbestos containing materials. Non-friable asbestos was identified in floor tile and associated mastic adhesives, mastic sealant materials on HVAC ductwork, decorative "Transite" trim materials and door caulk on foyer interior doors and framing. All non-friable asbestos containing materials were observed in good condition at the time of the inspection.

Non-friable asbestos containing roofing materials were identified on the roof of the Circuit Court Building. Non-friable asbestos included perimeter roof flashing, parapet walls, vent flashing, base flashing caulk on the penthouse and the main roof expansion joint.

Note: All HVAC ductwork components installed in overhead void spaces were visually confirmed to be contaminated with a combination of spray applied asbestos containing fireproofing insulation overspray or residual delaminated fireproofing insulation. The interiors of all return HVAC ductwork are presumed to be asbestos contaminated as a result of the delaminating asbestos containing fireproofing insulation materials.

ALS recommends the removal of all ACM prior to commencement of any renovation or demolition activities. If, during renovation or demolition activities, previously unidentified materials are encountered, it is strongly advisable that materials are analyzed for asbestos prior to their disturbance. A list of asbestos containing and asbestos contaminated materials for the General District Court Building can be found in Table I. A list of asbestos containing and asbestos contaminated materials for the Circuit Court Building can be found in Table II.

TABLE I (General District Court Building, 1st Floor)

Sample#	Material/ Description	Material/ Location	Friability	%, Type Asbestos and Condition	Homog. Quantity
103, 124, 136	HVAC duct seam mastic	Overhead areas (various diameter)	Non-friable	5% Chrysotile, good condition (ducts are contaminated with friable fireproofing)	6,280sf
104, 125, 137	Fireproofing	Overhead ceilings, structural I-beams, widespread overspray. (with exception of courtroom)	Friable	10%-15% Chrysotile, significant damage	18,224sf
110, 142	2" mudded pipe fitting	Overhead and in pipe chases associated with hot and cold water	Friable	25% Chrysotile, good condition	Approx. 36 fittings
117, 118, 119, 133, 134, 139	12"x12" floor tile and associated mastic	Hallways, courtroom, offices and storage areas (throughout). Some located under carpeting, two layers identified in lounge	Non-friable	2%-5% Chrysotile, good condition	11,928sf
120	Decorative black cementitious trim	Top of benches and counters in courtroom	Non-friable	20% Chrysotile, good condition	35sf
N/A	Insulated fire doors	Entrance to stairwells	Friable	Assumed	(3 doors) 96sf total
N/A	Reflective light heat shield	IT room adjacent courtroom	Friable	Assumed	(1) 1sf total
N/A	1'x1' ceiling tiles	Main hall	Friable	Significantly contaminated with asbestos fireproofing	620sf
N/A	2'x2' ceiling tiles	Throughout (with exception of courtroom)	Friable	Significantly contaminated with asbestos fireproofing	11,398sf
N/A	Pipe Insulation	Overhead and in pipe chases associated with hot & cold water	Friable	Significantly contaminated with asbestos fireproofing	Approx. 420lf
N/A	Smooth plaster ceilings	Restrooms and storage areas	Friable	Significantly contaminated with asbestos fireproofing	680sf
N/A	CMU block walls	Interior walls, throughout	Friable	Interior cavities significantly contaminated with asbestos fireproofing	5,890sf

TABLE I (General District Court Building, 1st Floor, Continued)

Sample#	Material/ Description	Material/ Location	Friability	%, Type Asbestos and Condition	Homog. Quantity
N/A	Framed drywall	Interior walls, throughout	Friable	Interior cavities significantly contaminated with asbestos fireproofing	11,890sf

TABLE II (Circuit Court Building, 1st, 2nd Floor and Roof)

Sample#	Material/ Description	Material/ Location	Friability	%, Type Asbestos and Condition	Homog. Quantity
5, 6, 25, 46, 53	1"-4" O.D. mudded pipe fitting	Overhead and in pipe chases associated with hot and cold water	Friable	10%-20% Chrysotile, good condition	Approx. 98 fittings
7, 15, 31, 36, 61, 79, 83	Fireproofing	Overhead ceilings, structural I-beams, widespread overspray.	Friable	15%-20% Chrysotile, significant damage	55,548sf
9, 19, 23, 37, 43, 59, 73, 74, 80	12"x12" floor tile and associated mastic	Hallways, courtrooms, offices and storage areas (throughout). Some located under carpeting,	Non-friable	2%-5% Chrysotile, good condition	34,321sf
17, 30, 33, 64, 78	Round and rectangular HVAC duct seam mastic	Overhead areas (various diameter)	Non-friable	5%-8% Chrysotile, good condition (ducts are contaminated with friable fireproofing)	21,078sf
22	Reflective light heat shield	Storage rooms	Friable	25% Chrysotile, good condition	(4) 4sf total
27, 66	Decorative black cementitious trim	Top of benches and counters in courtrooms	Non-friable	20% Chrysotile, good condition	450sf
34	Door caulk (grey)	foyer interior glass doors and framing	Non-friable	2% Chrysotile, good condition	240lf
47	Insulation board	Interior vault door	Friable	80% Chrysotile, good condition	18sf
51	Fire door insulation	Entrance to stairwells	Friable	25% Chrysotile, 5% Amosite, good condition	(9 doors) 288sf total
58, 84	CMU block filler	throughout	Non-friable	<1% (Trace) Anthophyllite	Refer to CMU Walls Below
N/A (69)	1'x1' ceiling tiles (smooth and textured)	Hallways and courtrooms	Friable	Significantly contaminated with asbestos fireproofing	15,023sf
N/A	2'x2' ceiling tiles	Throughout	Friable	Significantly contaminated with asbestos fireproofing	23,860sf

TABLE II (Circuit Court Building, 1st, 2nd Floor and Roof, Continued))

Sample#	Material/ Description	Material/ Location	Friability	%, Type Asbestos and Condition	Homog. Quantity
N/A	Pipe Insulation	Overhead and in pipe chases associated with hot & cold water	Friable	Significantly contaminated with asbestos fireproofing	1,420lf
N/A	Smooth plaster ceilings	Restrooms and storage areas	Friable	Significantly contaminated with asbestos fireproofing	1,452sf
N/A	CMU block walls	Interior walls, throughout	Friable	Interior cavities significantly contaminated with asbestos fireproofing	19,904sf
N/A	Framed drywall	Interior walls, throughout	Friable	Interior cavities significantly contaminated with asbestos fireproofing	26,930sf
N/A	Wood panel ceiling	Foyer	Friable	Significantly contaminated with asbestos fireproofing	253sf
89, 90, 98	Perimeter flashing	Roof perimeter tar and felt	Non-friable	5%, 25% and 40% Chrysotile, good condition	1,392sf
91, 100	Parapet wall	Roof perimeter areas tar and felt	Non-friable	10% and 20% Chrysotile, good condition	Included in perimeter flash above
92	Vent flashing	Roof Mechanical equipment tar and felt	Non-friable	10% and 20% Chrysotile, good condition	120lf
93	Perimeter flashing	Penthouse perimeter, tar and felt	Non-friable	10% and 20% Chrysotile, good condition	156sf
94	Base flash caulk (white)	Penthouse perimeter base	Non-friable	2% Chrysotile, good condition	238lf
95	Expansion joint	Roof expansion, tar and felt	Non-friable	10%, 25% and 40% Chrysotile, good condition	134lf
99	Flashing	Roof hatch, tar paper	Non-friable	40% Chrysotile, good condition	14lf

LEAD PAINT RESULTS SUMMARY

Painted surfaces within the two buildings were found to be intact and in good condition at the time of the inspection. No testing of painted surfaces was conducted, however painted surfaces are assumed to contain levels of Lead in Paint. Work impacting painted surfaces must be conducted in accordance with the requirements outlined in the OSHA Lead in Construction Standard, 29 CFR 1929.62. Lead waste must handled in accordance with 40 CFR 260; 40 CFR 261, 40 CFR 262, 40 CFR 263, 40 CFR 264, and 40 CFR 265. Disposal of debris must be conducted in accordance with all local, state and federal regulations. Prior to disposal of building materials contractors performing demolition activities must perform Toxicity Characteristics Leachate Procedure (TCLP) for Lead.

POLYCHLORINATED BIPHENYLS (PCB)/MERCURY TUBES & THERMOSTATS

The continued manufacture of lighting ballasts containing PCB's was banned by the US Environmental Protection Agency in 1979. All lighting fixtures manufactured prior to January of 1979 must be clearly marked as "Non-PCB" or be treated as PCB containing. ALS estimated a combined total of 899 PCB light ballast within the two buildings. Fluorescent Light Tubes associated with each light fixture was assumed to contain Mercury, ALS estimated a combined total of 1,735 fluorescent light bulbs in the buildings. An estimated combined total of 74 Mercury Thermostats were identified with the buildings. None of the materials were observed in poor condition or found to be leaking at the time of the inspection.

INSPECTION TECHNIQUES

The inspection was comprised of seven parts:

1. Reviewing the results of any previous investigations for ACM and inspecting building records which were made available for our evaluation.
2. Visual inspection of readily accessible spaces within the specified areas of the building. Documentation of physical description and location of suspect ACM.
3. Testing all specified surfaces for friability and determining the condition of suspect materials.
4. Sampling and documentation of observable suspect friable or non-friable materials by Environmental Protection Agency guidelines.
5. Recording assessment information.
6. Completing the appropriate laboratory analyses.
7. Preparing the report.

The results of the inspection are outlined in Appendixes of this report. Please note, in the absence of sample collection and analyses, OSHA's asbestos standard identifies some materials as being presumed asbestos-containing materials (PACM). PACM includes any thermal system insulation (TSI), any surfacing material, and any resilient flooring found in buildings constructed prior to 1980.

This inspection employed destructive sampling techniques; therefore, areas within the building that could be accessed by such sampling measures were evaluated. If, during demolition or renovation activities, suspect materials are encountered it is strongly advisable that said materials be analyzed for asbestos content prior to their disturbance. Due to being physically or visually inaccessible, the following areas were excluded from this inspection report:

1. The interior of mechanical equipment.
2. The interior of electrical equipment.
3. The interior of HVAC equipment.

ASBESTOS ANALYSIS AND LABORATORY INFORMATION

TESTING LABORATORIES

Applied Laboratory Services, L.L.C., participates and is proficient in the National Institute of Standards and Technology (NIST) Proficiency Test for bulk analysis. In addition to this program Applied Laboratory Services, L.L.C., requires that its laboratories compare their performance by polarized light microscopy (PLM) with that of other laboratories and maintains an in-house quality control/quality assurance program. The intra/interlaboratory programs serve to monitor all asbestos analysts and continually test their skills. In conjunction with that, ten percent of the bulk samples analyzed are to be reanalyzed monthly and statistical data maintained on the subsequent results, to include ratings of each analyst's performance. These samples shall be blind unknowns to the analyst, but their true compositions are known to other members of the laboratory in order to compare results.

QUALITATIVE ASSESSMENT METHOD

Samples are first viewed separately under a stereomicroscope for the presence of observable fibers. A portion of the sample is then mounted on a slide in a liquid of known refractive index. The analyst then utilizes optical properties and identification methods including, but not limited to, morphological characteristics, angles of extinction, sign of elongation, and dispersion staining colors to verify the presence/absence of asbestos.

QUANTITATIVE ASSESSMENT METHOD

The analyst expresses an estimate of fibrous and non-fibrous materials as an area percent of all material present. Since the distribution of material will not be homogenous on the slide, the analyst combines quantitative estimates from both the gross and microscopic examinations. This estimation method is in accordance with the Asbestos Hazard Emergency Response Act (AHERA) regulations (40 CFR Part 763) and has been successfully applied to the analysis of EPA Bulk Sample Analysis Quality Assurance Program samples.

LABORATORY RESULTS

The laboratory results of each sample can be obtained from the Appendices of this report. The analytical results form identifies the types of asbestos contained within a sample and the nature of other fibrous materials. These "other" material components include binders, fillers, and may include forms of asbestos other than chrysotile or amosite.

APPLICABLE ASBESTOS REGULATIONS

Asbestos presents a significant risk to human health as a result of air emissions from one or more sources. As such, it is considered a hazardous air pollutant and is subject to EPA regulations under the "National Emission Standards for Hazardous Air Pollutants" (NESHAP) which was promulgated as a result of Section 112 of the Clean Air Act (CAA).

The Asbestos NESHAP rule makes a distinction between an ACM that would readily release asbestos fibers when damaged or disturbed, described as "Friable", and an ACM that is unlikely to result in significant fiber release, described as "Non-friable". A dry, ACM that can be crumbled, pulverized, or reduced to powder by hand pressure is considered Friable. A Non-friable ACM cannot be crumbled, pulverized, or reduced to powder by hand pressure.

Friable ACMs include TSI and surfacing materials which have been applied by spraying or trowling.

Non-friable ACMs can be further categorized as Category I or Category II. Category I Non-friable materials include any asbestos-containing packings, gaskets, resilient floor coverings or asphalt roofing products which contain more than 1 percent asbestos. Category II Non-friable materials include any asbestos-containing materials other than those listed as Category I.

Regulated Asbestos-Containing Material (RACM) is:

- Friable asbestos material,
- Category I non-friable ACM that has become friable,
- Category I non-friable ACM that will be or has been subjected to sanding, grinding, cutting or abrading, or
- Category II non-friable ACM that has a high probability of becoming or has become crumbled, pulverized, or reduced to powder by the forces expected to act on the materials in the course of demolition or renovation operations.

The Occupational Safety and Health Administration (OSHA) have asbestos standards which protect the health of employees. Under these standards, the building/facility owner may be required to notify tenants, employees, or subcontractors of the presence, location, and quantity of ACM or PACM at the work sites in their buildings and facilities. In addition, the standards separate work involving asbestos into four (4) classes of activities. Each class is associated with increasing potential for exposures and is matched with increasingly stringent control requirements:

Class I **Removal Activities** involving TSI and/or Surfacing ACM.

Class II **Removal Activities** involving ACM which is neither TSI and/or Surfacing ACM. This includes, but is not limited to, materials such as flooring and roofing materials.

Class III **Repair and Maintenance Activities**, where ACM (any type) may be disturbed.

Class IV **Maintenance and Custodial Activities** during which employees contact ACM and/or in which the employee is required to clean up waste and debris containing ACM.

All Class I, II, and III asbestos work must be conducted within regulated areas. Each of these asbestos operations has engineering controls and work practices that are required. Different levels of respiratory protection and employee training are also required, dependent on the Class of activities.

Once a material has been identified as an ACM, recommendations are made based on the type of material and the condition of the material. The recommendations are based on the following table:

Table 1. Recommendations
1. Required and recommended removal methods for CLASS I removals, which involve Thermal Systems Insulation and/or Surfacing ACM/PACM, when inside of a building.
2. Required and recommended removal methods for CLASS I removals, which involve Thermal Systems Insulation and/or Surfacing ACM/PACM, when outside of a building.
3. Required and recommended removal methods for CLASS II removals. This involves ACM/PACM, which is neither Thermal Systems Insulation, and/or Surfacing ACM/PACM. This includes, but is not limited to, the removal of asbestos-containing wallboard, floor tile and sheeting, roofing and siding shingles, and built-up roofing.
4. Recommended removal methods for Incidental Roofing Material, which is flashing. The material must not be sanded, abraded, or ground, but must be removed using manual methods that do not render the material friable. Otherwise, removal of material becomes a CLASS II activity.
5. Required and recommended practices for CLASS IV activities such as Maintenance and Custodial operations. This includes demolition of in-place NESHAP Category I and II Non-friable materials in good condition, during which employees contact ACM/PACM and/or are required to clean up waste and debris containing ACM/PACM.
6. NESHAP Category I or II non-friable ACM with a low probability of becoming crumbled, pulverized, or reduced to powder during demolition need not be removed. However, if the probability is high that the material will become crumbled, pulverized or reduced to powder during demolition, it must be considered "Regulated Asbestos Containing Material" (RACM) and is subject to Asbestos NESHAP. If the material is to be sanded, ground, cut or abraded during demolition the material is also considered "RACM" and is subject to the Asbestos NESHAP[1]

[1] U.S. Environmental Protection Agency. National Emission Standards for Hazardous Air Pollutants (NESHAP), Asbestos Regulations. 40 CFR Part 61, Subpart M, November 20, 1990.

7.	Required and recommended practices for CLASS III activities such as Repair and Maintenance operations. This includes operations where the ACM, including TSI and surfacing ACM/PACM, may be disturbed. Maintenance activities that disrupt the matrix of ACM or PACM, or generate visible debris from ACM or PACM are classified as CLASS III.
8.	OSHA no longer regulates ACM cements, coatings, and mastics. These materials, if demolished in place, or removed substantially intact, are also NOT regulated by NESHAPS, and can be handled as construction debris.

The following work practices should be followed whenever demolition/renovation activities involving RACM occur (State regulations may require more stringent actions or reporting.):

- Notify EPA of intention to demolish/renovate,
- Remove all RACM from a facility being demolished or renovated before any disruptive activity begins or before access to the material is precluded,
- Keep RACM adequately wet before, during, and after removal operation,
- Conduct demolition/renovation activities in a manner which produces no visible emissions to the outside air, and
- Handle and dispose of all RACM in an approved manner.

APPLICABLE LEAD PAINT REGULATIONS

Lead is a prevalent toxic substance associated with certain paints, various types of piping, some soils and dusts (particularly around the perimeter of houses/buildings and within one mile of major roadways), vicinity of railroad tracks, pesticide application areas, industrial facilities, gasoline stations, and other media found in the vicinity of the subject site.

A number of regulations govern lead-based paint activities. In 1977 the Consumer Product Safety Commission, acting under the authority of the Consumer Product Safety Act, banned the sale of "lead-based paints" (coatings with lead content of greater than 0.06%, per CPSC definition) to consumers and banned the use of such paints where consumers may have direct access to painted surfaces (households, schools, recreation areas, toys, furniture, etc.). The Uniform Statewide Building Code (USBC) of the Code of Virginia requires proper management of lead-based paint in dwellings, dwelling units, and childcare facilities, including fences and outbuildings. The Federal Lead-based Paint Hazard Reduction Act of 1992 provides that, commencing 28 October 1995, no contract for the sale or lease of pre-1978 housing is binding on the purchaser or lessee unless the seller or lessor provides a copy of an EPA-prepared lead hazard pamphlet, discloses any known presence of lead-based paint and provides the purchaser with a 10-day period in which to conduct a risk assessment or lead inspection. The Act also requires specific language that must be included and countersigned in the contract of sale or the lease.

In addition to the above regulations which mostly concern residential exposure, OSHA regulations control construction activities involving lead from paint (including paint with less than 0.5% lead content) and other lead-containing materials, in residential, commercial, or industrial situations.

Available studies indicate that dust is the most important lead transmission vehicle and risk factor. Lead-contaminated dust can be generated in large quantities during renovation projects, even at locations where paint contains less than 0.5% lead. Therefore, it is advisable that renovation projects that disturb painted surfaces should be conducted under the assumption that lead is present in paint at the site.

BUILDING INSPECTION DISCLAIMER & ENDORSEMENTS

Applied Laboratory Services, L.L.C., is pleased to assist The City of Portsmouth Department with the hazardous materials building inspection at the subject property outlined in this report. This report has been prepared for the exclusive use of The City of Portsmouth and their agents for specific application to the property assessed. This work has been performed using reasonable care within the scope of work and in accordance with budgetary limitations. Applied Laboratory Services, L.L.C., strives to conduct services in keeping with regulatory boundaries, industry standards and in accordance with generally accepted industrial hygiene practice. No other warranty, expressed or implied, is made.

Our conclusions and recommendations are based upon our observations at the site, any reviewed documentation, test results, interviews, other information provided and our previous experience. The information contained in this document is based on physical inspections conducted by Applied Laboratory Services, L.L.C. We certify that our findings with regard to the presence or absence of visible and physically accessible asbestos is based on our inspection and the laboratory analysis of bulk samples taken during the inspection, unless otherwise noted in the report. All specified sampling areas which are reported to contain no asbestos have been inspected and, based on the inspection and analysis of suspect materials encountered or other reviews as described in this report were found to contain no ACM.

Applied Laboratory Services, L.L.C., has analyzed the information obtained in this audit in keeping with existing guidelines and regulations, but cannot accurately predict what actions or interpretations any given agency may take presently, or what standards and practices may apply to the site in the future. Should such variations in regulations, guidelines or site conditions become apparent in the future, it will be necessary to reevaluate our conclusions and recommendations based upon additional analyses and on-site observations as appropriate. The pricing for this work is based on the absence of personal liability of the preparers with respect to the work, and the understanding that any claim associated with the work shall look solely to Applied Laboratory Services, L.L.C.

Applied Laboratory Services, L.L.C., acknowledges that it maintained in full force and effect at the time the services described in the inspection were performed, professional liability (errors and omissions) insurance with minimum policy limits of one million dollars each occurrence and one million dollars in the aggregate. Applied Laboratory Services, L.L.C., currently maintains such insurance in full force and effect and currently has no plan to terminate such insurance in the foreseeable future. Applied Laboratory Services, L.L.C.'s liability in connection with this inspection shall cease after a period of three years from the date of completion of the study, and Applied Laboratory Services' total aggregate liability in connection with the inspection shall not exceed that amount actually covered by insurances on any such claim.

Please note that no environmental investigation can wholly eliminate uncertainty regarding the potential for adverse environmental conditions in connection with a property. This study is intended to reduce, but not eliminate, such uncertainty. The investigation recognizes reasonable limits of time and cost, and is designed to provide an appropriate level of inquiry, based on existing industry standards.

APPENDICES

APPENDIX A - ASBESTOS ANALYTICAL RESULTS

GENERAL DISTRICT COURT BLDG.

APPLIED LABORATORY SERVICES

Commonwealth of Virginia Asbestos Analytical Laboratory # 3333000153
NVLAP Lab # 200515-0

Certificate of Analysis

Analysis of Bulk Building Materials by Polarized Light Microscopy Techniques
EPA Test Method (EPA/600/R-93/116)

ALS Account: 01-163
Client: ALS Consulting
4101 Granby Street
Norfolk, VA 23504
P O:
TAT: ALS Standard

LIMS ID: ALS-2013-41035
Project Name: 1st Fl. General Dist. Court
ProjectNo: 10061
Location: Portsmouth, VA
Samples Received: 5/15/2013
Date Analyzed: 5/18/2013

Lab ID / Layer	Client ID / Homogenous	Sample Date / Description	Sample Location	Non Fibrous	Non Asbestos Fibers	Asbestos Fibers
41035-1	102	5/15/2013	Main Hall	55% NON FIBROUS MATERIAL	45% FIBROUS GLASS	None Detected
1	Yes	White Fibrous 1x1 Ceiling Tile				
41035-2	103	5/15/2013	Ovrhd, Main Hall	95% NON FIBROUS MATERIAL		5% CHRYSOTILE
1	Yes	Black Adhesive Mastic				
41035-2	103	5/15/2013	Ovrhd, Main Hall	40% METAL FOIL 10% NON FIBROUS MATERIAL	10% FIBROUS GLASS 40% CELLULOSE FIBER	None Detected
2	No	Beige & Grey Fibrous/Granular Jacket				
Sample analyzed as individual layers.						
41035-2	103	5/15/2013	Ovrhd, Main Hall	2% NON FIBROUS MATERIAL	98% FIBROUS GLASS	None Detected
3	Yes	Beige Fibrous Insulation				
Sample analyzed as individual layers.						
41035-3	104	5/15/2013	Ovrhd, Main Hall	25% NON FIBROUS MATERIAL	60% FIBROUS GLASS	15% CHRYSOTILE
1	Yes	White Fibrous Fireproofing				
41035-4	105	5/15/2013	Main Hall	100% NON FIBROUS MATERIAL		None Detected
1	No	Beige Granular 12x12 Floor Tile				
41035-4	105	5/15/2013	Main Hall	100% NON FIBROUS MATERIAL		None Detected
2	Yes	Yellow Adhesive Mastic				
Sample analyzed as individual layers.						
41035-5	106	5/15/2013	Main Hall	100% NON FIBROUS MATERIAL		None Detected
1	Yes	Beige Granular 12x12 Floor Tile				
41035-5	106	5/15/2013	Main Hall	100% NON FIBROUS MATERIAL		None Detected
2	Yes	Yellow Adhesive Mastic				
Sample analyzed as individual layers.						

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Lab ID / Layer	Client ID / Homogenous	Sample Date / Description	Sample Location	Non Fibrous	Non Asbestos Fibers	Asbestos Fibers
41035-6	107	5/15/2013	Main Hall	100% NON FIBROUS MATERIAL		None Detected
1	No	Grey & Black Pliable Cove Base				
41035-6	107	5/15/2013	Main Hall	90% NON FIBROUS MATERIAL	5% SYNTHETIC FIBER 5% CELLULOSE FIBER	None Detected
2	Yes	Yellow Adhesive Mastic				
Sample analyzed as individual layers.						
41035-7	108	5/15/2013	Main Hall	1% WOLLASTONITE 99% NON FIBROUS MATERIAL		None Detected
1	No	Green & White Granular Surfacing Material				
41035-8	109	5/15/2013	Pipe Chase, Bathroom	100% NON FIBROUS MATERIAL		None Detected
1	Yes	Black Adhesive Mastic				
41035-8	109	5/15/2013	Pipe Chase, Bathroom	40% METAL FOIL 10% NON FIBROUS MATERIAL	10% FIBROUS GLASS 40% CELLULOSE FIBER	None Detected
2	No	White & Grey Fibrous/Granular Jacket				
Sample analyzed as individual layers.						
41035-8	109	5/15/2013	Pipe Chase, Bathroom	2% NON FIBROUS MATERIAL	98% FIBROUS GLASS	None Detected
3	Yes	Beige Fibrous Insulation				
Sample analyzed as individual layers.						
41035-9	110	5/15/2013	Pipe Chase, Bathroom	55% NON FIBROUS MATERIAL	20% FIBROUS GLASS	25% CHRYSOTILE
1	Yes	Beige Fibrous Insulation				
41035-10	111	5/15/2013	Bathroom	100% NON FIBROUS MATERIAL		None Detected
1	Yes	White Granular Plaster				
41035-10	111	5/15/2013	Bathroom	90% NON FIBROUS MATERIAL	10% CELLULOSE FIBER	None Detected
2	No	White & Beige Fibrous/Granular Ceiling Board				
Sample analyzed as individual layers.						
41035-11	112	5/15/2013	Rear Hall, Office Area	100% NON FIBROUS MATERIAL		None Detected
1	Yes	White Granular Plaster				
41035-11	112	5/15/2013	Rear Hall, Office Area	90% NON FIBROUS MATERIAL	10% CELLULOSE FIBER	None Detected
2	No	White & Beige Fibrous/Granular Wallboard				
Sample analyzed as individual layers.						
41035-12	113	5/15/2013	Office Area	100% NON FIBROUS MATERIAL		None Detected
1	Yes	White Granular Plaster				
41035-12	113	5/15/2013	Office Area	90% NON FIBROUS MATERIAL	10% CELLULOSE FIBER	None Detected
2	No	White & Beige Fibrous/Granular Wallboard				
Sample analyzed as individual layers.						

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Lab ID / Layer	Client ID / Homogenous	Sample Date / Description	Sample Location	Non Fibrous	Non Asbestos Fibers	Asbestos Fibers
41035-13	114	5/15/2013	Office Area	90% NON FIBROUS MATERIAL	10% CELLULOSE FIBER	None Detected
1	No	White & Beige Fibrous/Granular Wallboard				
41035-14	115	5/15/2013	Support Column, Office Area	100% NON FIBROUS MATERIAL		None Detected
1	Yes	White Granular Plaster				
41035-14	115	5/15/2013	Support Column, Office Area	100% NON FIBROUS MATERIAL		None Detected
2	Yes	Beige Granular Scratch Coat				
Sample analyzed as individual layers.						
41035-15	116	5/15/2013	Support Column, Office Area	100% NON FIBROUS MATERIAL		None Detected
1	Yes	White Granular Plaster				
41035-15	116	5/15/2013	Support Column, Office Area	100% NON FIBROUS MATERIAL		None Detected
2	Yes	Beige Granular Scratch Coat				
Sample analyzed as individual layers.						
41035-16	117	5/15/2013	Courtroom, under Carpet	100% NON FIBROUS MATERIAL		None Detected
1	Yes	Yellow Adhesive Mastic				
41035-16	117	5/15/2013	Courtroom, under Carpet	97% NON FIBROUS MATERIAL		3% CHRYSOTILE
2	Yes	White Granular 12x12 Floor Tile				
Sample analyzed as individual layers.						
41035-16	117	5/15/2013	Courtroom, under Carpet	95% NON FIBROUS MATERIAL		5% CHRYSOTILE
3	Yes	Black Adhesive Mastic				
Sample analyzed as individual layers.						
41035-17	118	5/15/2013	Rear Hall	100% NON FIBROUS MATERIAL		None Detected
1	Yes	Yellow Adhesive Mastic				
41035-17	118	5/15/2013	Rear Hall	97% NON FIBROUS MATERIAL		3% CHRYSOTILE
2	Yes	White Granular 12x12 Floor Tile				
Sample analyzed as individual layers.						
41035-17	118	5/15/2013	Rear Hall	94% NON FIBROUS MATERIAL	1% FIBROUS GLASS	5% CHRYSOTILE
3	Yes	Black Adhesive Mastic				
Sample analyzed as individual layers.						
41035-18	119	5/15/2013	Office Area	100% NON FIBROUS MATERIAL		None Detected
1	Yes	Yellow Adhesive Mastic				

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Lab ID / Layer	Client ID / Homogenous	Sample Date / Description	Sample Location	Non Fibrous	Non Asbestos Fibers	Asbestos Fibers
41035-18	119	5/15/2013	Office Area	97% NON FIBROUS MATERIAL		3% CHRYSOTILE
2	Yes	White Granular 12x12 Floor Tile				
Sample analyzed as individual layers.						
41035-18	119	5/15/2013	Office Area	95% NON FIBROUS MATERIAL		5% CHRYSOTILE
3	Yes	Black Adhesive Mastic				
Sample analyzed as individual layers.						
41035-19	120	5/15/2013	Top of Benches, Courtroom	80% NON FIBROUS MATERIAL		20% CHRYSOTILE
1	Yes	Black Cementitious Decorative Trim				
41035-20	121	5/15/2013	Courtroom	100% NON FIBROUS MATERIAL		None Detected
1	No	Green & Black Pliable Cove Base				
41035-20	121	5/15/2013	Courtroom	100% NON FIBROUS MATERIAL		None Detected
2	Yes	Brown Adhesive Mastic				
Sample analyzed as individual layers.						
41035-21	122	5/15/2013	Office Area	5% METAL FOIL 50% NON FIBROUS MATERIAL	45% FIBROUS GLASS	None Detected
1	No	White & Grey Fibrous/Granular 2x2 Ceiling Tile				
41035-22	123	5/15/2013	Judges Chambers	5% METAL FOIL 50% NON FIBROUS MATERIAL	45% FIBROUS GLASS	None Detected
1	No	White & Grey Fibrous/Granular 2x2 Ceiling Tile				
41035-23	124	5/15/2013	Ovrhd, Office Area	95% NON FIBROUS MATERIAL		5% CHRYSOTILE
1	Yes	Black Adhesive Mastic				
41035-23	124	5/15/2013	Ovrhd, Office Area	40% METAL FOIL 10% NON FIBROUS MATERIAL	10% FIBROUS GLASS 40% CELLULOSE FIBER	None Detected
2	No	Beige & Grey Fibrous/Granular Jacket				
Sample analyzed as individual layers.						
41035-23	124	5/15/2013	Ovrhd, Office Area	2% NON FIBROUS MATERIAL	98% FIBROUS GLASS	None Detected
3	Yes	Beige Fibrous Insulation				
Sample analyzed as individual layers.						
41035-24	125	5/15/2013	Ovrhd, Office Area	30% NON FIBROUS MATERIAL	60% FIBROUS GLASS	10% CHRYSOTILE
1	Yes	White Fibrous Fireproofing				
41035-25	126	5/15/2013	Courtroom	35% NON FIBROUS MATERIAL	20% FIBROUS GLASS 45% CELLULOSE FIBER	None Detected
1	No	White & Beige Fibrous/Granular 2x2 Ceiling Tile				
41035-26	127	5/15/2013	Ovrhd, Courtroom	10% MICA 65% NON FIBROUS MATERIAL	25% CELLULOSE FIBER	None Detected
1	Yes	White Fibrous Fireproofing				

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Lab ID / Layer	Client ID / Homogenous	Sample Date / Description	Sample Location	Non Fibrous	Non Asbestos Fibers	Asbestos Fibers
41035-27	128	5/15/2013	Courtroom	35% NON FIBROUS MATERIAL	20% FIBROUS GLASS 45% CELLULOSE FIBER	None Detected
1	No	White & Beige Fibrous/Granular 2x2 Ceiling Tile				
41035-28	129	5/15/2013	Ovrhd, Courtroom	10% MICA 65% NON FIBROUS MATERIAL	25% CELLULOSE FIBER	None Detected
1	Yes	White Fibrous Fireproofing				
41035-29	130	5/15/2013	Ovrhd, Hall behind Courtroom	10% MICA 65% NON FIBROUS MATERIAL	25% CELLULOSE FIBER	None Detected
1	Yes	White Fibrous Fireproofing				
41035-30	131	5/15/2013	Courtroom, Rear Hall	100% NON FIBROUS MATERIAL		None Detected
1	Yes	Grey Cementitious Window Sill				

Analyst: Kim Mantey

NIST Signatory: K. Mantey, Senior Microscopist

Date Released: 5/20/2013

This Certificate of Analysis presents analytical data covered by this laboratory's accreditation under the National Voluntary Laboratory Accreditation Program (NVLAP). Detection, identification, and quantification of asbestos in certain building materials (e.g., floor tiles, caulk, asphalts, roofing materials) by PLM is difficult due to interfering matrix components. PLM technique has an estimated detection limit of 1% (v:v). Fibers smaller than 0.25 um cannot be detected; hence, correlative techniques should be considered for data verification. Non-detection of asbestos in certain materials should be verified by analytical electron microscopy techniques (refer to AHERA criteria). Quantifications are estimated by calibrated visual estimate, unless otherwise noted. The estimated measurement of uncertainty in PLM analysis is available upon request. The data reported herein relates only to those samples analyzed. This report shall not be reproduced, except in full, without the written permission of senior managers of this laboratory. This report shall not be used to claim product endorsement by NVLAP or any agency of the U.S. Government.

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APPLIED LABORATORY SERVICES

Commonwealth of Virginia Asbestos Analytical Laboratory # 3333000153
NVLAP Lab # 200515-0

Certificate of Analysis

Analysis of Bulk Building Materials by Polarized Light Microscopy Techniques
EPA Test Method (EPA/600/R-93/116)

ALS Account:	01-163	**LIMS ID:**	ALS-2013-41042
Client:	ALS Consulting 4101 Granby Street Norfolk, VA 23504	**Project Name:**	1st Fl. General Dist. Court
		ProjectNo:	10061
		Location:	Portsmouth, VA
P O:		**Samples Received:**	5/16/2013
TAT:	Standard	**Date Analyzed:**	5/17/2013

Lab ID / Layer	Client ID / Homogenous	Sample Date / Description	Sample Location	Non Fibrous	Non Asbestos Fibers	Asbestos Fibers
41042-1	132	5/16/2013	Office A	100% NON FIBROUS MATERIAL		None Detected
1	Yes	Blue Pliable Sheet Flooring				
41042-1	132	5/16/2013	Office A	99% NON FIBROUS MATERIAL	1% CELLULOSE FIBER	None Detected
2	Yes	Yellow Adhesive Mastic				
Sample analyzed as individual layers.						
41042-2	133	5/16/2013	Office A	98% NON FIBROUS MATERIAL		2% CHRYSOTILE
1	Yes	Black Granular 12x12 Floor Tile				
41042-2	133	5/16/2013	Office A	99% NON FIBROUS MATERIAL	1% CELLULOSE FIBER	<1% CHRYSOTILE
2	Yes	Yellow Adhesive Mastic				
Sample analyzed as individual layers.						
41042-3	134	5/16/2013	Office E	99% NON FIBROUS MATERIAL	1% SYNTHETIC FIBER	None Detected
1	Yes	Yellow Adhesive Mastic				
41042-3	134	5/16/2013	Office E	100% NON FIBROUS MATERIAL		None Detected
2	Yes	White Granular 12x12 Floor Tile				
Sample analyzed as individual layers.						
41042-3	134	5/16/2013	Office E	95% NON FIBROUS MATERIAL		5% CHRYSOTILE
3	Yes	Black Adhesive Mastic				
Sample analyzed as individual layers.						
41042-4	135	5/16/2013	Small Hall	10% METAL FOIL 45% NON FIBROUS MATERIAL	45% FIBROUS GLASS	None Detected
1	No	White & Grey Fibrous 2x2 Ceiling Tile				
41042-5	136	5/16/2013	Ovrhd Small Hall	95% NON FIBROUS MATERIAL		5% CHRYSOTILE
1	Yes	Black Adhesive Mastic				

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Lab ID / Layer	Client ID / Homogenous	Sample Date / Description	Sample Location	Non Fibrous	Non Asbestos Fibers	Asbestos Fibers
41042-5	136	5/16/2013	Ovrhd Small Hall	40% METAL FOIL 10% NON FIBROUS MATERIAL	10% FIBROUS GLASS 40% CELLULOSE FIBER	None Detected
2	No	Beige & Grey Fibrous/Granular Jacket				
Sample analyzed as individual layers.						
41042-5	136	5/16/2013	Ovrhd Small Hall	2% NON FIBROUS MATERIAL	98% FIBROUS GLASS	None Detected
3	Yes	Yellow Fibrous Insulation				
Sample analyzed as individual layers.						
41042-6	137	5/16/2013	Ovrhd Small Hall	30% NON FIBROUS MATERIAL	60% FIBROUS GLASS	10% CHRYSOTILE
1	Yes	White Fibrous Fireproofing				
41042-7	138	5/16/2013	Lounge, Top Layer	100% NON FIBROUS MATERIAL		None Detected
1	Yes	Grey Granular 12x12 Floor Tile				
41042-7	138	5/16/2013	Lounge, Top Layer	99% NON FIBROUS MATERIAL	1% CELLULOSE FIBER	None Detected
2	Yes	Yellow Adhesive Mastic				
Sample analyzed as individual layers.						
41042-8	139	5/16/2013	Lounge Bottom Layer	98% NON FIBROUS MATERIAL		2% CHRYSOTILE
1	Yes	Black Granular 12x12 Floor Tile				
41042-8	139	5/16/2013	Lounge Bottom Layer	95% NON FIBROUS MATERIAL		5% CHRYSOTILE
2	Yes	Black Adhesive Mastic				
Sample analyzed as individual layers.						
41042-9	140	5/16/2013	Office C	100% NON FIBROUS MATERIAL		None Detected
1	Yes	White Granular Plaster				
41042-9	140	5/16/2013	Office C	90% NON FIBROUS MATERIAL	10% CELLULOSE FIBER	None Detected
2	No	White & Beige Fibrous/Granular Wallboard				
Sample analyzed as individual layers.						
41042-10	141	5/16/2013	Records Area	100% NON FIBROUS MATERIAL		None Detected
1	Yes	White Granular Plaster				
41042-10	141	5/16/2013	Records Area	95% NON FIBROUS MATERIAL	5% CELLULOSE FIBER	None Detected
2	No	White & Beige Fibrous/Granular Wallboard				
Sample analyzed as individual layers.						
41042-11	142	5/16/2013	Ovrhd Hall	10% METAL FOIL	90% CELLULOSE FIBER	None Detected
1	Yes	Beige Fibrous Jacket				
41042-11	142	5/16/2013	Ovrhd Hall	59% NON FIBROUS MATERIAL	15% FIBROUS GLASS 1% CELLULOSE FIBER	25% CHRYSOTILE
2	Yes	Beige Fibrous/Granular Insulation				
Sample analyzed as individual layers.						
41042-12	143	5/16/2013	Ovrd Hall	40% METAL FOIL 10% NON FIBROUS MATERIAL	10% FIBROUS GLASS 40% CELLULOSE FIBER	None Detected
1	No	Beige & Grey Fibrous/Granular Jacket				

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Lab ID / Layer	Client ID / Homogenous	Sample Date / Description	Sample Location	Non Fibrous	Non Asbestos Fibers	Asbestos Fibers
41042-12	143	5/16/2013	Ovrd Hall	2% NON FIBROUS MATERIAL	98% FIBROUS GLASS	None Detected
2	Yes	Yellow Fibrous Insulation				

Sample analyzed as individual layers.

Analyst: Kim Mantey

NIST Signatory: K. Mantey, Senior Microscopist

Date Released: 5/20/2013

This Certificate of Analysis presents analytical data covered by this laboratory's accreditation under the National Voluntary Laboratory Accreditation Program (NVLAP). Detection, identification, and quantification of asbestos in certain building materials (e.g., floor tiles, caulk, asphalts, roofing materials) by PLM is difficult due to interfering matrix components. PLM technique has an estimated detection limit of 1% (v:v). Fibers smaller than 0.25 um cannot be detected; hence, correlative techniques should be considered for data verification. Non-detection of asbestos in certain materials should be verified by analytical electron microscopy techniques (refer to AHERA criteria). Quantifications are estimated by calibrated visual estimate, unless otherwise noted. The estimated measurement of uncertainty in PLM analysis is available upon request. The data reported herein relates only to those samples analyzed. This report shall not be reproduced, except in full, without the written permission of senior managers of this laboratory. This report shall not be used to claim product endorsement by NVLAP or any agency of the U.S. Government.

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ASBESTOS FIELD INSPECTION FORM/CHAIN OF CUSTODY

ALS Project #: 10061 Project Name: 1st Floor General Dist. Court Project Location: Portsmouth, VA.

Date Sampled: 5/15/13 Results Due: Std. Inspector(s): P. Thomas ALS Lims#: 41035

	Sample #	Sample Description	Sample Location	Quantity	*Condition G/D/SD	Friable Y/N
1	102	1'x1' ceiling tile	main Hall	1,640 SF	G	Y
2	103	HVAC duct & mastic	ovrhd, main Hall		G	Y/N
3	104	Fire proofing	" "		SD	Y
4	105	12"x12" FT & adhesive	main Hall		G	N
5	106	" "	" "		G	N
6	107	covebase & adhesive	" "		G	N
7	108	cmu Block Filler	" "		G	N/A
8	109	2" O.D. Pipe Ins.	Pipe chase, Bathroom		G	Y
9	110	2" O.D. molded Pipe fitting	" "		G	Y
10	111	Smooth Plaster Ceiling	Bathroom		G	Y

*Condition - (G) Good (D) Damaged (SD) Significantly Damaged

Special Instructions:

Released By:	Company	Date/Time	Received By:	Company	Date/Time
PL	ACS	5/15/13	A. Nichols	ALS	5/15/13

ASBESTOS FIELD INSPECTION FORM/CHAIN OF CUSTODY

ALS Project #: 10061 Project Name: 1st Fl. General Dist. Court Project Location: Portsmouth, VA.

Date Sampled: 5/15/13 Results Due: Std. Inspector(s): ALS Lims#: 41035

	Sample #	Sample Description	Sample Location	Quantity	*Condition G/D/SD	Friable Y/N
11	112	wallboard w/ skim coat	Rear Hall, office area		G	Y
12	113	" "	office area		G	Y
13	114	wallboard	" "		G	Y
14	115	smooth Plaster	Support Column, office area		G	Y
15	116	" "	" " "		G	Y
16	117	12" x 12" FT & mastic	courtroom, undercarpet		G	N
17	118	" "	Rear Hall		G	N
18	119	" "	office area		G	N
19	120	Decorative cementitious Trim	Top of Benches, courtroom		G	N
20	121	covebase & adhesive	courtroom		G	N

*Condition - (G) Good (D) Damaged (SD) Significantly Damaged

Special Instructions:

Released By:	Company	Date/Time	Received By:	Company	Date/Time
PL	ALS	5/15/13	A.N.	ALS	5/15/13
Released By:	Company	Date/Time	Received By:	Company	Date/Time

ASBESTOS FIELD INSPECTION FORM/CHAIN OF CUSTODY

ALS Project #: 10061 Project Name: 1st. Fl. General Dist. Ct./Project Location: Portsmouth, VA.

Date Sampled: 5/15/13 Results Due: Std Inspector(s): P. Thomas ALS Lims#: 41035

	Sample #	Sample Description	Sample Location	Quantity	*Condition G/D/SD	Friable Y/N
21	122	2'x2' ceiling tile	office area		G	Y
22	123	" "	Judges chambers		G	Y
23	124	HVAC duct & mastic	ovrhd, office area		G	Y/N
24	125	Fireproofing	" "		SD	Y
25	126	2'x2' ceiling tile	courtroom		G	Y
26	127	Fireproofing	ovrhd, courtroom		G	Y
27	128	2'x2' ceiling tile	courtroom		G	Y
28	129	Fireproofing	ovrhd, courtroom		G	Y
29	130	Fireproofing	ovrhd, hall behind courtroom		G	Y
30	131	cementitious window sill	courtroom, rear Hall		G	N

*Condition - (G) Good (D) Damaged (SD) Significantly Damaged

Special Instructions:

Released By:	Company	Date/Time	Received By:	Company	Date/Time
PT	ALS	5/15/13	A.N.	ALS	5/15/13
Released By:	Company	Date/Time	Received By:	Company	Date/Time

ASBESTOS FIELD INSPECTION FORM/CHAIN OF CUSTODY

ALS Project #: 10061 Project Name: 1st Fl. General Dist. Court Project Location: Portsmouth, VA.

Date Sampled: 5/16/13 Results Due: std Inspector(s): P. Thomas ALS Lims#: 41042

Sample #	Sample Description	Sample Location	Quantity	*Condition G/D/SD	Friable Y/N
132	sheet flooring, blue	OFFICE "A"	140sf	G	N
133	12x12 FT, Brown	OFFICE "A"		G	N
134	12x12 FT, white	OFFICE "E"		G	N
135	2'x2' ceiling tile	small Hall		G	Y
136	HVAC duct & mastic	ourhd small Hall		G	Y/N
137	Fireproofing	" "		SD	Y
138	12"x12" FT, grey & adhesive	Lounge, top layer	170sf	G	N
139	12"x12" FT, Brown & mastic	Lounge, bottom layer		G	N
140	wallboard	office "C"		G	Y
141	" "	Records Area		G	Y

*Condition - (G) Good (D) Damaged (SD) Significantly Damaged

Special Instructions:

Released By:	Company	Date/Time	Received By:	Company	Date/Time
PK	ALS	5/16/13	A. Nichols	ALS	5/16/13
Released By:	Company	Date/Time	Received By:	Company	Date/Time

ASBESTOS FIELD INSPECTION FORM/CHAIN OF CUSTODY

ALS Project #: 10061 Project Name: 1st Fl. General Dist. Court Project Location: Portsmouth, VA.

Date Sampled: 5/16/13 Results Due: Std Inspector(s): P. Thomas ALS Lims#: 41042

Sample #	Sample Description	Sample Location	Quantity	*Condition G/D/SD	Friable Y/N
143	2"-4" O.D. Pipe Insulation	ovrhd, Hall		G	Y
143	2"-4" O.D. molded pipe elbow	" "		G	Y

*Condition - (G) Good (D) Damaged (SD) Significantly Damaged

Special Instructions:

Released By:	Company	Date/Time	Received By:	Company	Date/Time
PT	ALS	5/16/13	A.N.	ALS	5/16/13
Released By:	Company	Date/Time	Received By:	Company	Date/Time

APPENDIX B - ASBESTOS ANALYTICAL RESULTS

CIRCUIT COURT BLDG.

APPLIED LABORATORY SERVICES

Commonwealth of Virginia Asbestos Analytical Laboratory # 3333000153
NVLAP Lab # 200515-0

Certificate of Analysis

Analysis of Bulk Building Materials by Polarized Light Microscopy Techniques
EPA Test Method (EPA/600/R-93/116)

ALS Account: 01-163
Client: ALS Consulting
4101 Granby Street
Norfolk, VA 23504
P O:
TAT: ALS Standard

LIMS ID: ALS-2013-40952
Project Name: 1st Fl. Circuit Court
ProjectNo: 10061
Location: Portsmouth, VA
Samples Received: 5/9/2013
Date Analyzed: 5/13/2013

Lab ID / Layer	Client ID / Homogenous	Sample Date / Description	Sample Location	Non Fibrous	Non Asbestos Fibers	Asbestos Fibers
40952-1	1	5/8/2013	Courtroom #1	5% METAL FOIL	45% FIBROUS GLASS	None Detected
1	No	White & Grey Fibrous/Granular 1x1 Textured Ceiling Tile		50% NON FIBROUS MATERIAL		
40952-2	2	5/8/2013	Courtroom #1	5% METAL FOIL	45% FIBROUS GLASS	None Detected
1	No	White & Grey Fibrous/Granular 1x1 Textured Ceiling Tile		50% NON FIBROUS MATERIAL		
40952-3	3	5/8/2013	Ovrhd. Courtroom #1	20% METAL FOIL	5% FIBROUS GLASS	None Detected
1	No	Beige & Grey Fibrous/Granular Jacket		30% NON FIBROUS MATERIAL	45% CELLULOSE FIBER	
40952-3	3	5/8/2013	Ovrhd. Courtroom #1	2% NON FIBROUS MATERIAL	98% FIBROUS GLASS	None Detected
2	Yes	Yellow Fibrous Insulation				
Sample analyzed as individual layers.						
40952-4	4	5/8/2013	Ovrhd. Courtroom #1	20% METAL FOIL	5% FIBROUS GLASS	None Detected
1	No	Beige & Grey Fibrous/Granular Jacket		30% NON FIBROUS MATERIAL	45% CELLULOSE FIBER	
40952-4	4	5/8/2013	Ovrhd. Courtroom #1	2% NON FIBROUS MATERIAL	98% FIBROUS GLASS	None Detected
2	Yes	Yellow Fibrous Insulation				
Sample analyzed as individual layers.						
40952-5	5	5/8/2013	Ovrhd. Courtroom #1	65% NON FIBROUS MATERIAL	25% FIBROUS GLASS	10% CHRYSOTILE
1	Yes	Beige Fibrous/Granular Insulation				
40952-6	6	5/8/2013	Ovrhd. Courtroom #1	10% NON FIBROUS MATERIAL	90% CELLULOSE FIBER	None Detected
1	Yes	Beige Fibrous Jacket				
40952-6	6	5/8/2013	Ovrhd. Courtroom #1	65% NON FIBROUS MATERIAL	25% FIBROUS GLASS	10% CHRYSOTILE
2	Yes	Beige Fibrous Insulation				
Sample analyzed as individual layers.						

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Lab ID / Layer	Client ID / Homogenous	Sample Date / Description	Sample Location	Non Fibrous	Non Asbestos Fibers	Asbestos Fibers
40952-7	7	5/8/2013	Ovrhd. Courtroom #1	25% NON FIBROUS MATERIAL	60% FIBROUS GLASS	15% CHRYSOTILE
1	Yes	White Fibrous Fireproofing				
40952-8	8	5/8/2013	Ovrhd. Courtroom 1, Perimeter Barrier	40% METAL FOIL 10% NON FIBROUS MATERIAL	10% FIBROUS GLASS 40% CELLULOSE FIBER	None Detected
1	No	Beige & Grey Fibrous/Granular Jacket				
40952-9	9	5/8/2013	Courtroom #1	96% NON FIBROUS MATERIAL		4% CHRYSOTILE
1	Yes	Beige Granular 12x12 Floor Tile				
40952-9	9	5/8/2013	Courtroom #1	95% NON FIBROUS MATERIAL		5% CHRYSOTILE
2	Yes	Black Adhesive Mastic				
Sample analyzed as individual layers.						
40952-10	10	5/8/2013	Courtroom #1	100% NON FIBROUS MATERIAL		None Detected
1	Yes	Grey Cementitious Slate				
40952-11	11	5/8/2013	Courtroom #1	100% NON FIBROUS MATERIAL		None Detected
1	Yes	Black Pliable Cove Base				
40952-11	11	5/8/2013	Courtroom #1	100% NON FIBROUS MATERIAL		<1% CHRYSOTILE
2	Yes	Brown Adhesive Mastic				
Sample analyzed as individual layers.						
40952-12	12	5/8/2013	Hall behind Courtroom #1	20% METAL FOIL 35% NON FIBROUS MATERIAL	45% FIBROUS GLASS	None Detected
1	No	White Fibrous/Granular 2x2 Ceiling Tile				
40952-13	13	5/8/2013	Courtroom #1, Jury Bathroom	100% NON FIBROUS MATERIAL		None Detected
1	Yes	White Granular Plaster				
40952-13	13	5/8/2013	Courtroom #1, Jury Bathroom	90% NON FIBROUS MATERIAL	10% CELLULOSE FIBER	None Detected
2	No	White & Beige Fibrous/Granular Ceiling Board				
Sample analyzed as individual layers.						
40952-14	14	5/8/2013	Interior Wall, Courtroom #1	1% WOLLASTONITE 99% NON FIBROUS MATERIAL		None Detected
1	No	Green & White Granular Surfacing Material				
40952-15	15	5/8/2013	Ovrhd. Main Hall	25% NON FIBROUS MATERIAL	60% FIBROUS GLASS	15% CHRYSOTILE
1	Yes	White Fibrous Fireproofing				

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Lab ID / Layer	Client ID / Homogenous	Sample Date / Description	Sample Location	Non Fibrous	Non Asbestos Fibers	Asbestos Fibers
40952-16	16	5/8/2013	Main Hall	55% NON FIBROUS MATERIAL	45% FIBROUS GLASS	None Detected
1	Yes	White Fibrous/Granular 1x1 Ceiling Tile				
40952-17	17	5/8/2013	Ovrhd. Main Hall	92% NON FIBROUS MATERIAL		8% CHRYSOTILE
1	Yes	Black Adhesive Mastic				
40952-17	17	5/8/2013	Ovrhd. Main Hall	40% METAL FOIL 10% NON FIBROUS MATERIAL	10% FIBROUS GLASS 40% CELLULOSE FIBER	None Detected
2	No	Beige & Grey Fibrous/Granular Jacket				
Sample analyzed as individual layers.						
40952-17	17	5/8/2013	Ovrhd. Main Hall	2% NON FIBROUS MATERIAL	98% FIBROUS GLASS	None Detected
3	Yes	Beige Fibrous Insulation				
Sample analyzed as individual layers.						
40952-18	18	5/8/2013	Courtroom #2	20% METAL FOIL 35% NON FIBROUS MATERIAL	45% FIBROUS GLASS	None Detected
1	No	White & Grey Fibrous/Granular 1x1 Textured Ceiling Tile				
40952-19	19	5/8/2013	Courtroom #2	97% NON FIBROUS MATERIAL		3% CHRYSOTILE
1	Yes	Beige Granular 12x12 Floor Tile				
40952-19	19	5/8/2013	Courtroom #2	95% NON FIBROUS MATERIAL		5% CHRYSOTILE
2	Yes	Black Adhesive Mastic				
Sample analyzed as individual layers.						
40952-20	20	5/8/2013	Courtroom #2	100% NON FIBROUS MATERIAL		None Detected
1	Yes	Black Pliable Cove Base				
40952-20	20	5/8/2013	Courtroom #2	100% NON FIBROUS MATERIAL		None Detected
2	Yes	Brown Adhesive Mastic				
Sample analyzed as individual layers.						
40952-21	21	5/8/2013	Judge Office, Courtroom #2	100% NON FIBROUS MATERIAL		None Detected
1	Yes	Blue Granular 12x12 Floor Tile				
40952-21	21	5/8/2013	Judge Office, Courtroom #2	98% NON FIBROUS MATERIAL	2% CELLULOSE FIBER	None Detected
2	Yes	Yellow Adhesive Mastic				
Sample analyzed as individual layers.						
40952-22	22	5/8/2013	Storage Room, Courtroom #2	25% METAL FOIL 10% NON FIBROUS MATERIAL	40% CELLULOSE FIBER	25% CHRYSOTILE
1	No	White & Grey Fibrous/Granular Light Fixture Backing				
40952-23	23	5/8/2013	Storage Room, Courtroom #2	96% NON FIBROUS MATERIAL		4% CHRYSOTILE
1	Yes	White Granular 12x12 Floor Tile				

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Lab ID / Layer	Client ID / Homogenous	Sample Date / Description	Sample Location	Non Fibrous	Non Asbestos Fibers	Asbestos Fibers
40952-23	23	5/8/2013	Storage Room, Courtroom #2	94% NON FIBROUS MATERIAL	1% CELLULOSE FIBER	5% CHRYSOTILE
2	Yes	Black Adhesive Mastic				
Sample analyzed as individual layers.						
40952-24	24	5/8/2013	Bath Pipe Chase, Judge Office	40% METAL FOIL 10% NON FIBROUS MATERIAL	10% FIBROUS GLASS 40% CELLULOSE FIBER	None Detected
1	No	White & Grey Fibrous/Granular Jacket				
40952-24	24	5/8/2013	Bath Pipe Chase, Judge Office	2% NON FIBROUS MATERIAL	98% FIBROUS GLASS	None Detected
2	Yes	Yellow Fibrous Insulation				
Sample analyzed as individual layers.						
40952-25	25	5/8/2013	Bath Pipe Chase, Judge Office	10% NON FIBROUS MATERIAL	90% CELLULOSE FIBER	None Detected
1	Yes	Beige Fibrous Jacket				
40952-25	25	5/8/2013	Bath Pipe Chase, Judge Office	65% NON FIBROUS MATERIAL	20% FIBROUS GLASS	15% CHRYSOTILE
2	Yes	Beige Fibrous Insulation				
Sample analyzed as individual layers.						
40952-26	26	5/8/2013	Rear Hall, Courtroom #2	10% METAL FOIL 45% NON FIBROUS MATERIAL	45% FIBROUS GLASS	None Detected
1	No	White & Grey Fibrous/Granular 2x2 Ceiling Tile				
40952-27	27	5/8/2013	Top of Furniture, Courtroom #2	80% NON FIBROUS MATERIAL		20% CHRYSOTILE
1	Yes	Grey Cementitious Material				
40952-28	28	5/8/2013	Main Hall	100% NON FIBROUS MATERIAL		None Detected
1	No	Green & White Granular Sufacing Material				
40952-29	29	5/8/2013	Main Foyer/Hall	55% NON FIBROUS MATERIAL	45% FIBROUS GLASS	None Detected
1	Yes	White Fibrous/Granular 1x1 Ceiling Tile				
40952-30	30	5/8/2013	Ovrhd. at Main Foyer	95% NON FIBROUS MATERIAL		5% CHRYSOTILE
1	Yes	Black Adhesive Mastic				
40952-30	30	5/8/2013	Ovrhd. at Main Foyer	40% METAL FOIL 10% NON FIBROUS MATERIAL	10% FIBROUS GLASS 40% CELLULOSE FIBER	None Detected
2	No	Beige & Grey Fibrous/Granular Jacket				
Sample analyzed as individual layers.						
40952-30	30	5/8/2013	Ovrhd. at Main Foyer	2% NON FIBROUS MATERIAL	98% FIBROUS GLASS	None Detected
3	Yes	Beige Fibrous Insulation				
Sample analyzed as individual layers.						

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Lab ID / Layer	Client ID / Homogenous	Sample Date / Description	Sample Location	Non Fibrous	Non Asbestos Fibers	Asbestos Fibers
40952-31	31	5/8/2013	Ovrhd. Main Foyer/Hall	40% NON FIBROUS MATERIAL	45% FIBROUS GLASS	15% CHRYSOTILE
1	Yes	White Fibrous Fireproofing				
40952-32	32	5/8/2013	Ovrhd. Main Foyer/Hall	40% METAL FOIL 10% NON FIBROUS MATERIAL	10% FIBROUS GLASS 40% CELLULOSE FIBER	None Detected
1	No	White & Grey Fibrous/Granular Jacket				
40952-32	32	5/8/2013	Ovrhd. Main Foyer/Hall	2% NON FIBROUS MATERIAL	98% FIBROUS GLASS	None Detected
2	Yes	Yellow Fibrous Insulation				
Sample analyzed as individual layers.						
40952-33	33	5/8/2013	Rear Hall Courtroom #2, Ovrhd.	95% NON FIBROUS MATERIAL		5% CHRYSOTILE
1	Yes	Black Adhesive Mastic				
40952-33	33	5/8/2013	Rear Hall Courtroom #2, Ovrhd.	40% METAL FOIL 10% NON FIBROUS MATERIAL	10% FIBROUS GLASS 40% CELLULOSE FIBER	None Detected
2	No	Beige & Grey Fibrous/Granular Jacket				
Sample analyzed as individual layers.						
40952-33	33	5/8/2013	Rear Hall Courtroom #2, Ovrhd.	2% NON FIBROUS MATERIAL	98% FIBROUS GLASS	None Detected
3	Yes	Beige Fibrous Insulation				
Sample analyzed as individual layers.						
40952-34	34	5/8/2013	Foyer Storefront Windows	96% NON FIBROUS MATERIAL	1% SYNTHETIC FIBER 1% CELLULOSE FIBER	2% CHRYSOTILE
1	Yes	Grey Pliable Caulking				
40952-35	35	5/8/2013	Clerks Office	55% NON FIBROUS MATERIAL	45% FIBROUS GLASS	None Detected
1	No	White & Grey Fibrous/Granular 2x2 Ceiling Tile				
40952-36	36	5/8/2013	Clerks Office	40% NON FIBROUS MATERIAL	45% FIBROUS GLASS	15% CHRYSOTILE
1	Yes	White Fibrous Fireproofing				
40952-37	37	5/8/2013	Under Carpet, Clerks Office	100% NON FIBROUS MATERIAL		None Detected
1	Yes	Yellow Adhesive Mastic				
40952-37	37	5/8/2013	Under Carpet, Clerks Office	96% NON FIBROUS MATERIAL		4% CHRYSOTILE
2	Yes	White Granular 12x12 Floor Tile				
Sample analyzed as individual layers.						
40952-37	37	5/8/2013	Under Carpet, Clerks Office	95% NON FIBROUS MATERIAL		5% CHRYSOTILE
3	Yes	Black Adhesive Mastic				
Sample analyzed as individual layers.						

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Lab ID / Layer	Client ID / Homogenous	Sample Date / Description	Sample Location	Non Fibrous	Non Asbestos Fibers	Asbestos Fibers
40952-38	38	5/8/2013	Clerks Office	100% NON FIBROUS MATERIAL		None Detected
1	Yes	White Granular Plaster				
40952-38	38	5/8/2013	Clerks Office	90% NON FIBROUS MATERIAL	10% CELLULOSE FIBER	None Detected
2	No	White & Beige Fibrous/Granular Wallboard				
Sample analyzed as individual layers.						
40952-39	39	5/8/2013	Rear Large Office, Clerks	100% NON FIBROUS MATERIAL		None Detected
1	Yes	White Granular Plaster				
40952-39	39	5/8/2013	Rear Large Office, Clerks	90% NON FIBROUS MATERIAL	10% CELLULOSE FIBER	None Detected
2	No	White & Beige Fibrous/Granular Wallboard				
Sample analyzed as individual layers.						
40952-40	40	5/8/2013	Front Counter, Clerks Office	90% NON FIBROUS MATERIAL	10% CELLULOSE FIBER	None Detected
1	No	White & Beige Fibrous/Granular Wallboard				
40952-41	41	5/8/2013	Rear Large Office, Clerks	100% NON FIBROUS MATERIAL		None Detected
1	No	Grey & Red Pliable Cove Base				
40952-41	41	5/8/2013	Rear Large Office, Clerks	100% NON FIBROUS MATERIAL		None Detected
2	No	White & Brown Adhesive Mastic				
Sample analyzed as individual layers.						
40952-42	42	5/8/2013	Top Layer, Clerk Area Waiting	100% NON FIBROUS MATERIAL		None Detected
1	Yes	Pink Granular 12x12 Floor Tile				
40952-42	42	5/8/2013	Top Layer, Clerk Area Waiting	100% NON FIBROUS MATERIAL		None Detected
2	Yes	Clear Adhesive Mastic				
Sample analyzed as individual layers.						
40952-43	43	5/8/2013	Bottom Layer, Clerk Area, Waiting	100% NON FIBROUS MATERIAL		None Detected
1	Yes	Clear Adhesive Mastic				
Sample analyzed as individual layers.						
40952-43	43	5/8/2013	Bottom Layer, Clerk Area, Waiting	97% NON FIBROUS MATERIAL		3% CHRYSOTILE
2	Yes	White Granular 12x12 Floor Tile				
Sample analyzed as individual layers.						

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Lab ID / Layer	Client ID / Homogenous	Sample Date / Description	Sample Location	Non Fibrous	Non Asbestos Fibers	Asbestos Fibers
40952-43	43	5/8/2013	Bottom Layer, Clerk Area, Waiting	95% NON FIBROUS MATERIAL		5% CHRYSOTILE
3	Yes	Black Adhesive Mastic				
Sample analyzed as individual layers.						
40952-44	44	5/8/2013	Clerks Area	100% NON FIBROUS MATERIAL		None Detected
1	No	Green & White Granular Sufacing Material				
40952-45	45	5/8/2013	Clerks Bathroom, Pipe Chase	40% METAL FOIL 10% NON FIBROUS MATERIAL	10% FIBROUS GLASS 40% CELLULOSE FIBER	None Detected
1	No	Grey & Beige Fibrous/Granular Jacket				
40952-45	45	5/8/2013	Clerks Bathroom, Pipe Chase	2% NON FIBROUS MATERIAL	98% FIBROUS GLASS	None Detected
2	Yes	Yellow Fibrous Insulation				
Sample analyzed as individual layers.						
40952-46	46	5/8/2013	Clerks Bathroom, Pipe Chase	10% NON FIBROUS MATERIAL	90% CELLULOSE FIBER	None Detected
1	Yes	White Fibrous Jacket				
40952-46	46	5/8/2013	Clerks Bathroom, Pipe Chase	50% NON FIBROUS MATERIAL	40% FIBROUS GLASS	10% CHRYSOTILE
2	Yes	Beige Fibrous Insulation				
Sample analyzed as individual layers.						
40952-47	47	5/8/2013	Interior Vault Door, Clerks Office	10% NON FIBROUS MATERIAL	10% CELLULOSE FIBER	80% CHRYSOTILE
1	Yes	White Fibrous Insulation				
40952-48	48	5/8/2013	Clerks Office	99% NON FIBROUS MATERIAL	1% CELLULOSE FIBER	None Detected
1	Yes	Grey Cementitious Slate				
40952-49	49	5/8/2013	Column, Clerks Office	100% NON FIBROUS MATERIAL		None Detected
1	Yes	White Granular Plaster				
40952-49	49	5/8/2013	Column, Clerks Office	100% NON FIBROUS MATERIAL		None Detected
2	Yes	Beige Granular Scratch Coat				
Sample analyzed as individual layers.						
40952-50	50	5/8/2013	Clerks Bathroom	100% NON FIBROUS MATERIAL		None Detected
1	Yes	White Granular Plaster				
40952-50	50	5/8/2013	Clerks Bathroom	90% NON FIBROUS MATERIAL	10% CELLULOSE FIBER	None Detected
2	No	White & Beige Fibrous/Granular Ceiling Board				
Sample analyzed as individual layers.						

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Lab ID	Client ID	Sample Date	Sample Location	Non Fibrous	Non Asbestos Fibers	Asbestos Fibers
Layer	Homogenous	Description				

Analyst: Kim Mantey

NIST Signatory: K. Mantey, Senior Microscopist

Date Released: 5/15/2013

This Certificate of Analysis presents analytical data covered by this laboratory's accreditation under the National Voluntary Laboratory Accreditation Program (NVLAP). Detection, identification, and quantification of asbestos in certain building materials (e.g., floor tiles, caulk, asphalts, roofing materials) by PLM is difficult due to interfering matrix components. PLM technique has an estimated detection limit of 1% (v:v). Fibers smaller than 0.25 um cannot be detected; hence, correlative techniques should be considered for data verification. Non-detection of asbestos in certain materials should be verified by analytical electron microscopy techniques (refer to AHERA criteria). Quantifications are estimated by calibrated visual estimate, unless otherwise noted. The estimated measurement of uncertainty in PLM analysis is available upon request. The data reported herein relates only to those samples analyzed. This report shall not be reproduced, except in full, without the written permission of senior managers of this laboratory. This report shall not be used to claim product endorsement by NVLAP or any agency of the U.S. Government.

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APPLIED LABORATORY SERVICES

Commonwealth of Virginia Asbestos
Analytical Laboratory # 3333000153
NVLAP Lab # 200515-0

Certificate of Analysis

Analysis of Bulk Building Materials by Polarized Light Microscopy Techniques
EPA Test Method (EPA/600/R-93/116)

ALS Account: 01-163
Client: ALS Consulting
4101 Granby Street
Norfolk, VA 23504
P O:
TAT: ALS Standard

LIMS ID: ALS-2013-40975
Project Name: 2nd Fl. Circuit Court
ProjectNo: 10061
Location: Portsmouth, VA
Samples Received: 5/10/2013
Date Analyzed: 5/15/2013

Lab ID / Layer	Client ID / Homogenous	Sample Date / Description	Sample Location	Non Fibrous	Non Asbestos Fibers	Asbestos Fibers
40975-1	51	5/9/2013	2nd Fl. West Stairwell	70% NON FIBROUS MATERIAL		25% CHRYSOTILE 5% AMOSITE
1	Yes	Beige Fibrous Insulation				
40975-2	52	5/9/2013	2nd Fl. Bath, Pipe Chase	40% METAL FOIL 10% NON FIBROUS MATERIAL	10% FIBROUS GLASS 40% CELLULOSE FIBER	None Detected
1	No	White & Grey Fibrous/Granular Jacket				
40975-2	52	5/9/2013	2nd Fl. Bath, Pipe Chase	2% NON FIBROUS MATERIAL	98% FIBROUS GLASS	None Detected
2	Yes	Yellow Fibrous Insulation				
Sample analyzed as individual layers.						
40975-3	53	5/9/2013	2nd Fl. Bath, Pipe Chase	10% NON FIBROUS MATERIAL	90% CELLULOSE FIBER	None Detected
1	Yes	Beige Fibrous Jacket				
40975-3	53	5/9/2013	2nd Fl. Bath, Pipe Chase	55% NON FIBROUS MATERIAL	25% FIBROUS GLASS	20% CHRYSOTILE
2	Yes	Beige Fibrous Insulation				
Sample analyzed as individual layers.						
40975-4	54	5/9/2013	2nd Fl. Bathroom	100% NON FIBROUS MATERIAL		None Detected
1	Yes	White Granular Plaster				
40975-4	54	5/9/2013	2nd Fl. Bathroom	90% NON FIBROUS MATERIAL	10% CELLULOSE FIBER	None Detected
2	No	White Fibrous/Granular Scratch Coat and Paper				
Sample analyzed as individual layers.						
40975-5	55	5/9/2013	Courtroom #4, Office	10% METAL FOIL 45% NON FIBROUS MATERIAL	45% FIBROUS GLASS	None Detected
1	No	White & Grey Fibrous/Granular 2x2 Ceiling Tile				

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Lab ID / Layer	Client ID / Homogenous	Sample Date / Description	Sample Location	Non Fibrous	Non Asbestos Fibers	Asbestos Fibers
40975-6	56	5/9/2013	Courtroom #4, Office	100% NON FIBROUS MATERIAL		None Detected
1	No	White Granular Plaster				
40975-6	56	5/9/2013	Courtroom #4, Office	90% NON FIBROUS MATERIAL	10% CELLULOSE FIBER	None Detected
2	No	White & Beige Fibrous/Granular Wallboard				
Sample analyzed as individual layers.						
40975-7	57	5/9/2013	Courtroom #4, Judges Office	90% NON FIBROUS MATERIAL	10% CELLULOSE FIBER	None Detected
1	No	White & Beige Fibrous/Granular Wallboard				
40975-8	58	5/9/2013	Courtroom #4, Office	100% NON FIBROUS MATERIAL		<1% ANTHOPHYLLITE
1	No	Green & White Granular Surfacing Material				
40975-9	59	5/9/2013	Courtroom #4, Office, Hall	96% NON FIBROUS MATERIAL		4% CHRYSOTILE
1	Yes	White Granular 12x12 Floor Tile				
40975-9	59	5/9/2013	Courtroom #4, Office, Hall	97% NON FIBROUS MATERIAL		3% CHRYSOTILE
2	Yes	Black Adhesive Mastic				
Sample analyzed as individual layers.						
40975-10	60	5/9/2013	Courtroom #4	55% NON FIBROUS MATERIAL	45% FIBROUS GLASS	None Detected
1	No	White Fibrous/Granular 1x1 Textured Ceiling Tile				
40975-11	61	5/9/2013	Ovrhd. Courtroom #4	20% NON FIBROUS MATERIAL	60% FIBROUS GLASS	20% CHRYSOTILE
1	Yes	White Fibrous Fireproofing				
40975-12	62	5/9/2013	Courtroom #4, Counter	60% NON FIBROUS MATERIAL	40% CELLULOSE FIBER	None Detected
1	Yes	Grey Cementitious Material				
40975-13	63	5/9/2013	2nd Fl. Hall	55% NON FIBROUS MATERIAL	45% FIBROUS GLASS	None Detected
1	No	White Fibrous/Granular 1x1 Ceiling Tile				
40975-14	64	5/9/2013	Ovrhd. 2nd Fl. Hall	95% NON FIBROUS MATERIAL		5% CHRYSOTILE
1	Yes	Black Adhesive Mastic				
40975-14	64	5/9/2013	Ovrhd. 2nd Fl. Hall	40% METAL FOIL 10% NON FIBROUS MATERIAL	10% FIBROUS GLASS 40% CELLULOSE FIBER	None Detected
2	No	Beige & Grey Fibrous/Granular Jacket				
Sample analyzed as individual layers.						

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Lab ID / Layer	Client ID / Homogenous	Sample Date / Description	Sample Location	Non Fibrous	Non Asbestos Fibers	Asbestos Fibers
40975-14	64	5/9/2013	Ovrhd. 2nd Fl. Hall	2% NON FIBROUS MATERIAL	98% FIBROUS GLASS	None Detected
3	Yes	Beige Fibrous Insulation				
Sample analyzed as individual layers.						
40975-15	65	5/9/2013	2nd Fl. Hall	100% NON FIBROUS MATERIAL		None Detected
1	Yes	Grey Cementitious Slate				
40975-16	66	5/9/2013	Courtroom #3 Counter Edge	80% NON FIBROUS MATERIAL		20% CHRYSOTILE
1	Yes	Grey Cementitious Material				
40975-17	67	5/9/2013	Bath, Courtroom #3	100% NON FIBROUS MATERIAL		None Detected
1	Yes	White Granular Plaster				
40975-17	67	5/9/2013	Bath, Courtroom #3	90% NON FIBROUS MATERIAL	10% CELLULOSE FIBER	None Detected
2	No	White & Beige Fibrous/Granular Ceiling Board				
Sample analyzed as individual layers.						
40975-18	68	5/9/2013	Courtroom #3, Waiting	90% NON FIBROUS MATERIAL	10% CELLULOSE FIBER	None Detected
1	No	White & Beige Fibrous/Granular Wallboard				
40975-19	69	5/9/2013	Courtroom #3	5% METAL FOIL 48% NON FIBROUS MATERIAL	45% FIBROUS GLASS	2% CHRYSOTILE
1	No	White & Grey Fibrous/Granular 1x1 Textured Ceiling Tile				
40975-20	70	5/9/2013	Courtroom #3	100% NON FIBROUS MATERIAL		None Detected
1	No	Black Pliable Cove Base				
40975-20	70	5/9/2013	Courtroom #3	100% NON FIBROUS MATERIAL		None Detected
2	Yes	Brown Adhesive Mastic				
Sample analyzed as individual layers.						
40975-21	71	5/9/2013	Courtroom #3, Office	100% NON FIBROUS MATERIAL		None Detected
1	Yes	White Granular Plaster				
40975-21	71	5/9/2013	Courtroom #3, Office	90% NON FIBROUS MATERIAL	10% CELLULOSE FIBER	None Detected
2	No	White & Beige Fibrous/Granular Wallboard				
Sample analyzed as individual layers.						
40975-22	72	5/9/2013	Bathroom	100% NON FIBROUS MATERIAL		None Detected
1	No	Beige Cementitious Terrazzo				
40975-23	73	5/9/2013	Courtroom #5 Offices	98% NON FIBROUS MATERIAL		2% CHRYSOTILE
1	Yes	Black Granular 12x12 Floor Tile				

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Lab ID / Layer	Client ID / Homogenous	Sample Date / Description	Sample Location	Non Fibrous	Non Asbestos Fibers	Asbestos Fibers
40975-23	73	5/9/2013	Courtroom #5 Offices	95% NON FIBROUS MATERIAL		5% CHRYSOTILE
2	Yes	Black Adhesive Mastic				
Sample analyzed as individual layers.						
40975-24	74	5/9/2013	Courtroom #5 Offices	98% NON FIBROUS MATERIAL		2% CHRYSOTILE
1	Yes	Black Granular 12x12 Floor Tile				
40975-24	74	5/9/2013	Courtroom #5 Offices	95% NON FIBROUS MATERIAL		5% CHRYSOTILE
2	Yes	Black Adhesive Mastic				
Sample analyzed as individual layers.						
40975-25	75	5/9/2013	Courtroom #5 Offices	90% NON FIBROUS MATERIAL	10% CELLULOSE FIBER	None Detected
1	No	White & Beige Fibrous/Granular Wallboard				
40975-26	76	5/9/2013	Courtroom #5 Offices	100% NON FIBROUS MATERIAL		None Detected
1	Yes	White Granular Plaster				
40975-26	76	5/9/2013	Courtroom #5 Offices	90% NON FIBROUS MATERIAL	10% CELLULOSE FIBER	None Detected
2	No	White & Beige Fibrous/Granular Wallboard				
Sample analyzed as individual layers.						
40975-27	77	5/9/2013	Courtroom #5 Offices	55% NON FIBROUS MATERIAL	45% FIBROUS GLASS	None Detected
1	No	White & Grey Fibrous/Granular 2x2 Ceiling Tile				
40975-28	78	5/9/2013	Ovrhd. Courtroom #5 Offices	95% NON FIBROUS MATERIAL		5% CHRYSOTILE
1	Yes	Black Adhesive Mastic				
40975-28	78	5/9/2013	Ovrhd. Courtroom #5 Offices	40% METAL FOIL 10% NON FIBROUS MATERIAL	10% FIBROUS GLASS 40% CELLULOSE FIBER	None Detected
2	No	Beige & Grey Fibrous/Granular Jacket				
Sample analyzed as individual layers.						
40975-28	78	5/9/2013	Ovrhd. Courtroom #5 Offices	2% NON FIBROUS MATERIAL	98% FIBROUS GLASS	None Detected
3	Yes	Yellow Fibrous Insulation				
Sample analyzed as individual layers.						
40975-29	79	5/9/2013	Ovrhd. Courtroom #5 Offices	25% NON FIBROUS MATERIAL	60% FIBROUS GLASS	15% CHRYSOTILE
1	Yes	White Fibrous Fireproofing				
40975-30	80	5/9/2013	Victims Waiting/Lounge	100% NON FIBROUS MATERIAL		None Detected
1	Yes	Beige Granular 12x12 Floor Tile				

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Lab ID / Layer	Client ID / Homogenous	Sample Date / Description	Sample Location	Non Fibrous	Non Asbestos Fibers	Asbestos Fibers
40975-30	80	5/9/2013	Victims Waiting/Lounge	95% NON FIBROUS MATERIAL	1% FIBROUS GLASS 2% CELLULOSE FIBER	2% CHRYSOTILE
2	Yes	Black Adhesive Mastic				
Sample analyzed as individual layers.						
40975-31	81	5/9/2013	Victims Witness	100% NON FIBROUS MATERIAL		None Detected
1	Yes	White Granular Plaster				
40975-31	81	5/9/2013	Victims Witness	90% NON FIBROUS MATERIAL	10% CELLULOSE FIBER	None Detected
2	No	White & Beige Fibrous/Granular Wallboard				
Sample analyzed as individual layers.						
40975-32	82	5/9/2013	Ovrhd. Victims Witness	10% METAL FOIL 45% NON FIBROUS MATERIAL	45% FIBROUS GLASS	None Detected
1	No	White & Grey Fibrous/Granular 2X2 Ceiling Tile				
40975-33	83	5/9/2013	Ovrhd. Victims Witness	25% NON FIBROUS MATERIAL	60% FIBROUS GLASS	15% CHRYSOTILE
1	Yes	White Fibrous Fireproofing				
40975-34	84	5/9/2013	Victims Witness Hall	100% NON FIBROUS MATERIAL		<1% ANTHOPHYLLITE
1	No	Green & White Granular Surfacing Material				
40975-35	85	5/9/2013	Victims Witness Hall	100% NON FIBROUS MATERIAL		None Detected
1	No	Black Pliable Cove Base				
40975-35	85	5/9/2013	Victims Witness Hall	100% NON FIBROUS MATERIAL		None Detected
2	Yes	Brown Adhesive Mastic				
Sample analyzed as individual layers.						
40975-36	86	5/9/2013	Main Hall, East End	55% NON FIBROUS MATERIAL	45% FIBROUS GLASS	None Detected
1	No	White Fibrous/Granular 1x1 Ceiling Tile				

Analyst: Kim Mantey

NIST Signatory: K. Mantey, Senior Microscopist

Date Released: 5/16/2013

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APPLIED LABORATORY SERVICES

Commonwealth of Virginia Asbestos
Analytical Laboratory # 3333000153
NVLAP Lab # 200515-0

Certificate of Analysis

Analysis of Bulk Building Materials by Polarized Light Microscopy Techniques
EPA Test Method (EPA/600/R-93/116)

ALS Account:	01-163	**LIMS ID:**	ALS-2013-40997
Client:	ALS Consulting 4101 Granby Street Norfolk, VA 23504	**Project Name:**	Roof
		ProjectNo:	10061
		Location:	Circuit Court, Portsmouth
P O:		**Samples Received:**	5/14/2013
TAT:	ALS Standard	**Date Analyzed:**	5/16/2013

Lab ID / Layer	Client ID / Homogenous	Sample Date / Description	Sample Location	Non Fibrous	Non Asbestos Fibers	Asbestos Fibers
40997-1	87	5/13/2013	Southwest Area	70% NON FIBROUS MATERIAL	5% FIBROUS GLASS 5% SYNTHETIC FIBER 20% CELLULOSE FIBER	None Detected
1	Yes	Black Fibrous/Adhesive Tar				
40997-2	88	5/13/2013	Southwest Area	70% NON FIBROUS MATERIAL	5% FIBROUS GLASS 5% SYNTHETIC FIBER 20% CELLULOSE FIBER	None Detected
1	Yes	Black Adhesive Tar				
40997-2	88	5/13/2013	Southwest Area	20% NON FIBROUS MATERIAL	5% SYNTHETIC FIBER 75% CELLULOSE FIBER	None Detected
2	Yes	Black Fibrous Tar Paper				
Sample analyzed as individual layers.						
40997-2	88	5/13/2013	Southwest Area	2% NON FIBROUS MATERIAL	98% FIBROUS GLASS	None Detected
3	Yes	Yellow Fibrous Insulation				
Sample analyzed as individual layers.						
40997-3	89	5/13/2013	Southwest Side	70% NON FIBROUS MATERIAL	5% FIBROUS GLASS 20% CELLULOSE FIBER	5% CHRYSOTILE
1	Yes	Black Adhesive Tar				
40997-3	89	5/13/2013	Southwest Side	85% NON FIBROUS MATERIAL	10% CELLULOSE FIBER 5% FIBROUS GLASS	None Detected
2	Yes	Black Adhesive Tar				
Sample analyzed as individual layers.						
40997-3	89	5/13/2013	Southwest Side	2% NON FIBROUS MATERIAL	98% FIBROUS GLASS	None Detected
3	Yes	Yellow Fibrous Insulation				
Sample analyzed as individual layers.						
40997-4	90	5/13/2013	Southeast Side	20% NON FIBROUS MATERIAL	60% CELLULOSE FIBER	20% CHRYSOTILE
1	Yes	Brown Fibrous Tar Paper				
40997-4	90	5/13/2013	Southeast Side	90% NON FIBROUS MATERIAL		10% CHRYSOTILE
2	Yes	Black Adhesive Tar				
Sample analyzed as individual layers.						

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Lab ID / Layer	Client ID / Homogenous	Sample Date / Description	Sample Location	Non Fibrous	Non Asbestos Fibers	Asbestos Fibers
40997-5	91	5/13/2013	Northwest Side	80% NON FIBROUS MATERIAL	20% SYNTHETIC FIBER	None Detected
1	Yes	Black Pliable Tar				
40997-5	91	5/13/2013	Northwest Side	100% NON FIBROUS MATERIAL		None Detected
2	Yes	Grey Pliable Rubbery Material				
Sample analyzed as individual layers.						
40997-5	91	5/13/2013	Northwest Side	80% NON FIBROUS MATERIAL	10% CELLULOSE FIBER	10% CHRYSOTILE
3	Yes	Black Adhesive Tar				
Sample analyzed as individual layers.						
40997-6	92	5/13/2013	Southwest Area	85% NON FIBROUS MATERIAL	5% CELLULOSE FIBER	10% CHRYSOTILE
1	Yes	Black Adhesive Tar				
40997-6	92	5/13/2013	Southwest Area	40% NON FIBROUS MATERIAL	40% CELLULOSE FIBER	20% CHRYSOTILE
2	Yes	Brown Fibrous Tar Paper				
Sample analyzed as individual layers.						
40997-6	92	5/13/2013	Southwest Area	5% NON FIBROUS MATERIAL	95% CELLULOSE FIBER	None Detected
3	Yes	Brown Fibrous Insulation				
Sample analyzed as individual layers.						
40997-7	93	5/13/2013	Southside of Penthouse	80% NON FIBROUS MATERIAL	10% CELLULOSE FIBER	10% CHRYSOTILE
1	Yes	Black Adhesive Tar				
40997-7	93	5/13/2013	Southside of Penthouse	20% NON FIBROUS MATERIAL	60% CELLULOSE FIBER	20% CHRYSOTILE
2	Yes	Brown Fibrous Tar Paper				
Sample analyzed as individual layers.						
40997-7	93	5/13/2013	Southside of Penthouse	80% NON FIBROUS MATERIAL	20% CELLULOSE FIBER	None Detected
3	Yes	Black Adhesive Tar				
Sample analyzed as individual layers.						
40997-7	93	5/13/2013	Southside of Penthouse	5% NON FIBROUS MATERIAL	95% CELLULOSE FIBER	None Detected
4	Yes	Brown Fibrous Insulation				
Sample analyzed as individual layers.						
40997-7	93	5/13/2013	Southside of Penthouse	5% NON FIBROUS MATERIAL	95% CELLULOSE FIBER	None Detected
5	Yes	Beige Fibrous Cloth				
Sample analyzed as individual layers.						
40997-8	94	5/13/2013	Southside of Penthouse	98% NON FIBROUS MATERIAL		2% CHRYSOTILE
1	Yes	White Pliable Caulking				
40997-8	94	5/13/2013	Southside of Penthouse	100% NON FIBROUS MATERIAL		None Detected
2	Yes	Beige Pliable Caulking				
Sample analyzed as individual layers.						

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Lab ID / Layer	Client ID / Homogenous	Sample Date / Description	Sample Location	Non Fibrous	Non Asbestos Fibers	Asbestos Fibers
40997-9	95	5/13/2013	Northeast Area	70% NON FIBROUS MATERIAL	20% CELLULOSE FIBER	10% CHRYSOTILE
1	Yes	Black Adhesive Tar				
40997-9	95	5/13/2013	Northeast Area	65% NON FIBROUS MATERIAL	10% CELLULOSE FIBER	25% CHRYSOTILE
2	Yes	Black Fibrous/Adhesive Tar				
Sample analyzed as individual layers.						
40997-9	95	5/13/2013	Northeast Area	20% NON FIBROUS MATERIAL	40% CELLULOSE FIBER	40% CHRYSOTILE
3	Yes	Brown Fibrous Tar Paper				
Sample analyzed as individual layers.						
40997-9	95	5/13/2013	Northeast Area	5% NON FIBROUS MATERIAL	95% CELLULOSE FIBER	None Detected
4	Yes	Brown Fibrous Insulation				
Sample analyzed as individual layers.						
40997-10	96	5/13/2013	Northeast Area	100% NON FIBROUS MATERIAL		None Detected
1	Yes	Black Adhesive Tar				
40997-10	96	5/13/2013	Northeast Area	30% NON FIBROUS MATERIAL	10% FIBROUS GLASS 60% CELLULOSE FIBER	None Detected
2	Yes	Black Fibrous Tar Paper				
Sample analyzed as individual layers.						
40997-10	96	5/13/2013	Northeast Area	2% NON FIBROUS MATERIAL	98% FIBROUS GLASS	None Detected
3	Yes	Yellow Fibrous Insulation				
Sample analyzed as individual layers.						
40997-11	97	5/13/2013	Northeast Area	100% NON FIBROUS MATERIAL		None Detected
1	Yes	Black Adhesive Tar				
40997-11	97	5/13/2013	Northeast Area	20% NON FIBROUS MATERIAL	80% CELLULOSE FIBER	None Detected
2	Yes	Black Fibrous Tar Paper				
Sample analyzed as individual layers.						
40997-11	97	5/13/2013	Northeast Area	2% NON FIBROUS MATERIAL	98% FIBROUS GLASS	None Detected
3	Yes	Yellow Fibrous Insulation				
Sample analyzed as individual layers.						
40997-12	98	5/13/2013	Northeast Area	75% NON FIBROUS MATERIAL		25% CHRYSOTILE
1	Yes	Black Fibrous/Adhesive Tar				
40997-12	98	5/13/2013	Northeast Area	20% NON FIBROUS MATERIAL	40% CELLULOSE FIBER	40% CHRYSOTILE
2	Yes	Brown Fibrous Tar Paper				
Sample analyzed as individual layers.						
40997-12	98	5/13/2013	Northeast Area	5% NON FIBROUS MATERIAL	95% CELLULOSE FIBER	None Detected
3	Yes	Brown Fibrous Insulation				
Sample analyzed as individual layers.						
40997-13	99	5/13/2013	Roof Hatch	30% NON FIBROUS MATERIAL	10% FIBROUS GLASS 60% CELLULOSE FIBER	None Detected
1	Yes	Black Adhesive Tar Paper				

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Lab ID / Layer	Client ID / Homogenous	Sample Date / Description	Sample Location	Non Fibrous	Non Asbestos Fibers	Asbestos Fibers
40997-13	99	5/13/2013	Roof Hatch	2% NON FIBROUS MATERIAL	98% CELLULOSE FIBER	None Detected
2	Yes	Brown Fibrous Insulation				
Sample analyzed as individual layers.						
40997-13	99	5/13/2013	Roof Hatch	20% NON FIBROUS MATERIAL	40% CELLULOSE FIBER	40% CHRYSOTILE
3	Yes	Brown Fibrous Tar Paper				
Sample analyzed as individual layers.						
40997-14	100	5/13/2013	Northwest Side	80% NON FIBROUS MATERIAL	20% SYNTHETIC FIBER	None Detected
1	Yes	Black Adhesive Tar				
40997-14	100	5/13/2013	Northwest Side	65% NON FIBROUS MATERIAL	20% CELLULOSE FIBER	15% CHRYSOTILE
2	Yes	Black Adhesive Tar				
Sample analyzed as individual layers.						
40997-15	101	5/13/2013	Coping	100% NON FIBROUS MATERIAL		None Detected
1	Yes	White Pliable Caulking				

Analyst: Kim Mantey

NIST Signatory: K. Mantey, Senior Microscopist

Date Released: 5/16/2013

This Certificate of Analysis presents analytical data covered by this laboratory's accreditation under the National Voluntary Laboratory Accreditation Program (NVLAP). Detection, identification, and quantification of asbestos in certain building materials (e.g., floor tiles, caulk, asphalts, roofing materials) by PLM is difficult due to interfering matrix components. PLM technique has an estimated detection limit of 1% (v:v). Fibers smaller than 0.25 um cannot be detected; hence, correlative techniques should be considered for data verification. Non-detection of asbestos in certain materials should be verified by analytical electron microscopy techniques (refer to AHERA criteria). Quantifications are estimated by calibrated visual estimate, unless otherwise noted. The estimated measurement of uncertainty in PLM analysis is available upon request. The data reported herein relates only to those samples analyzed. This report shall not be reproduced, except in full, without the written permission of senior managers of this laboratory. This report shall not be used to claim product endorsement by NVLAP or any agency of the U.S. Government.

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ASBESTOS FIELD INSPECTION FORM/CHAIN OF CUSTODY

ALS Project #: 10061 Project Name: 1st Fl. Circuit Court Project Location: Portsmouth, VA.

Date Sampled: 5/8/13 Results Due: Std. Inspector(s): P. Thomas ALS Lims#: 40952

Sample #	Sample Description	Sample Location	Quantity	*Condition G/D/SD	Friable Y/N
1	1'x1' Textured Ceiling tile	Courtroom #1		D	Y
2	" "	" "		D	Y
3	2"-4" O.D. H.W. Pipe	ovrHD courtroom #1		G	Y
4	2"-4" O.D. C.W. Pipe	" "		G	Y
5	2"-4" O.D. H.W. mudded elbow	" "		G	Y
6	2"-4" O.D. C.W. mudded elbow	" "		G	Y
7	Fireproofing	" "		SD	Y
8	HVAC wrap	ovrHD Courtroom 1, perimeter Barrier		G	Y
9	12"x12" FT & mastic	courtroom #1		G	N
10	Black cementitious window sill	" "		G	N

*Condition - (G) Good (D) Damaged (SD) Significantly Damaged

Special Instructions:

Released By:	Company	Date/Time	Received By:	Company	Date/Time
P	ACS	5/8/13	A. Nichols	ACS	5/9/13
Released By:	Company	Date/Time	Received By:	Company	Date/Time

ASBESTOS FIELD INSPECTION FORM/CHAIN OF CUSTODY

ALS Project #: 10061 Project Name: 1st. Floor Circuit Court Project Location: Portsmouth, VA.

Date Sampled: 5/8/13 Results Due: Std Inspector(s): P. Thomas ALS Lims#: 40952

Sample #	Sample Description	Sample Location	Quantity	*Condition G/D/SD	Friable Y/N
11	Black cove base & adhesive	courtroom #1		G	N
12	2'X2' ceiling tile	Hall behind courtroom #1		G	Y
13	Smooth Plaster ceiling	courtroom #1, Jury Bathroom		G	Y
14	CMU Block Filler	Interior wall, courtroom #1		G	Y
15	Fireproofing	ovrhd main Hall		SD	Y
16	1'x'1 ceiling tile	main Hall		D	Y
17	Round HVAC duct INS & mastic	ovrhd main Hall		G	Y/N
18	1'X1' textured ceiling tile	courtroom #2		D	Y
19	12"X12" FT & mastic	" "		G	N
20	Black cove base & adhesive	" "		G	N

*Condition - (G) Good (D) Damaged (SD) Significantly Damaged

Special Instructions:

Released By:	Company	Date/Time	Received By:	Company	Date/Time
[signature]	ALS	5/8/13	[signature]	ALS	5/9/13
Released By:	Company	Date/Time	Received By:	Company	Date/Time

ASBESTOS FIELD INSPECTION FORM/CHAIN OF CUSTODY

ALS Project #: 10061 Project Name: 1st. Fl. Circuit Court Project Location: Portsmouth, VA.

Date Sampled: 5/8/13 Results Due: Std. Inspector(s): P. Thomas ALS Lims#: 40952

Sample #	Sample Description	Sample Location	Quantity	*Condition G/D/SD	Friable Y/N
21	Blue 12x12 Ft & adhesive	Judge office, courtroom #2	320 SF	G	N
22	Reflective backing, round light fixture	storage room, courtroom #2	3 total +1	G	Y
23	12x12 FT, white	" "	355F ~~W/WALL~~	G	N
24	2"-4" O.D. Pipe INS.	Bath pipe chase, Judge office		G	Y
25	2"-4" O.D. mudded elbow	" "		G	Y
26	2'x2' ceiling tile	Rear Hall, courtroom #2		D	Y
27	Black Cementitious Decorative trim	top of furniture, courtroom #2	Ctem 1 Ctem 2 150sf + 150sf	G	N
28	CMU Block ~~WALL~~ Filler	main Hall		G	Y
29	1'x1' ceiling tile	main Foyer/Hall		D	Y
30	Large Round HVAC duct INS. & mastic	ourhd at main Foyer		G	Y/N

*Condition - (G) Good (D) Damaged (SD) Significantly Damaged

Special Instructions:

Released By:	Company	Date/Time	Received By:	Company	Date/Time
[signature]	ALS	5/8/13	A.M.	ALS	5/9/13
Released By:	Company	Date/Time	Received By:	Company	Date/Time

ASBESTOS FIELD INSPECTION FORM/CHAIN OF CUSTODY

ALS Project #: 10061 Project Name: First Floor Circuit Court Project Location: Portsmouth, VA.

Date Sampled: 5/8/13 Results Due: Std. Inspector(s): P. Thomas ALS Lims#: 40952

Sample #	Sample Description	Sample Location	Quantity	*Condition G/D/SD	Friable Y/N
31	Fireproofing	ovrhd main foyer/hall		SD	Y
32	2"-4" o.D. Pipe Insulation	" "		G	Y
33	HVAC duct Ins. & mastic	Rear hall courtroom #2, ovrhd.		G	Y/N
34	caulking,	Foyer storefront windows	240 LF	G	N
35	2'x2' ceiling tile	clerks office		G	Y
36	Fireproofing	" "		SD	Y
37	12"x12" FT & mastic	under carpet, clerks office		G	N
38	wallboard	clerks office		G	Y
39	" "	Rear Large office, clerks		G	Y
40	" "	Front counter, clerks office		G	Y

*Condition - (G) Good (D) Damaged (SD) Significantly Damaged

Special Instructions:

Released By:	Company	Date/Time	Received By:	Company	Date/Time
PK	ACS	5/8/13	A.M.	ACS	5/9/13

ASBESTOS FIELD INSPECTION FORM/CHAIN OF CUSTODY

ALS Project #: 10061 Project Name: First Floor, Circuit court Project Location: Portsmouth, VA.

Date Sampled: 5/8/13 Results Due: Std. Inspector(s): P. Thomas ALS Lims#: 40952

Sample #	Sample Description	Sample Location	Quantity	*Condition G/D/SD	Friable Y/N
41	Burgandy cove base & adhesive	Rear Large office, clerks		G	N
42	12"x12" FT, Pink & adhesive	Top layer, clerk area waiting		G	N
43	12" x12 FT & adhesive	Bottom layer, clerk area, waiting		G	N
44	CMU Block Filler	clerks area		G	Y
45	1" O.D. Pipe Insulation	clerks Bathroom, Pipe chase		G	Y
46	1" O.D. Pipe mudded elbow	" "		G	Y
47	Insulation Board	Interior Vault door, clerks office	18SF	G	Y
48	cementitious window sill	clerks office		G	N
49	Smooth Plaster	column, clerks office		G	Y
50	Smooth ceiling Plaster	clerks Bathroom		G	Y

*Condition - (G) Good (D) Damaged (SD) Significantly Damaged

Special Instructions:

Released By:	Company	Date/Time	Received By:	Company	Date/Time
PT	ALS	5/8/13	A.M.	ACS	5/9/13
Released By:	Company	Date/Time	Received By:	Company	Date/Time

ASBESTOS FIELD INSPECTION FORM/CHAIN OF CUSTODY

ALS Project #: 10061 Project Name: 2nd fl. circuit court Project Location: Portsmouth, VA.

Date Sampled: 5/9/13 Results Due: std Inspector(s): P. Thomas ALS Lims#: 40975

Sample #	Sample Description	Sample Location	Quantity	*Condition G/D/SD	Friable Y/N
51	Firedoor Insulation	2nd Fl, west stairwell	32sf (x9)	G	Y
52	1"-2" O.D. Pipe Insulation	2nd Fl. Bath, Pipe chase		G	Y
53	1"-2" O.D. molded elbow	" "		G	Y
54	Smooth ceiling Plaster	2nd Fl Bathroom		G	Y
55	2'x2' ceiling tile	courtroom #4, office		G	Y
56	wallboard	" "		G	Y
57	" "	courtroom #4, Judges office		G	Y
58	CMU Block Filler	courtroom #4, office		G	Y
59	12"x12" FT & mastic	courtroom #4, office, hall		G	N
60	1'x1' Textured ceiling tile	courtroom #4		G	Y

*Condition - (G) Good (D) Damaged (SD) Significantly Damaged

Special Instructions:

Released By:	Company	Date/Time	Received By:	Company	Date/Time
PT	ALS	5/9/13	A. Nichols	ALS	5/10/13
Released By:	Company	Date/Time	Received By:	Company	Date/Time

ASBESTOS FIELD INSPECTION FORM/CHAIN OF CUSTODY

ALS Project #: 10061 Project Name: 2nd Fl. Circuit Court Project Location: Portsmouth, VA.

Date Sampled: 5/9/13 Results Due: Std. Inspector(s): ALS Lims#: 40975

Sample #	Sample Description	Sample Location	Quantity	*Condition G/D/SD	Friable Y/N
61	Fireproofing	ovrhd courtroom #4		SD	Y
62	cementitious Panel	courtroom #4, counter		G	N
63	1'x1' ceiling tile	2nd Fl. Hall		D	Y
64	HVAC duct Jws & mastic	ovrhd 2nd Fl. Hall		G	Y/N
65	cementitious window sill	2nd Fl. Hall		G	N
66	cementitious trim	courtroom #3 counter edge		G	N
67	ceilingboard	Bath, courtroom #3		G	Y
68	wallboard	courtroom #3, waiting		G	Y
69	1'x1' textured ceiling tile	courtroom #3		D	Y
70	black covebase & adhesive	" "		G	N

*Condition - (G) Good (D) Damaged (SD) Significantly Damaged

Special Instructions:

Released By:	Company	Date/Time	Received By:	Company	Date/Time
PL	ALS	5/9/13	A.N.	ALS	5/10/13

ASBESTOS FIELD INSPECTION FORM/CHAIN OF CUSTODY

ALS Project #: 10061 Project Name: 2nd Fl. Circuit Court Project Location: Portsmouth, VA.

Date Sampled: 5/9/13 Results Due: Std. Inspector(s): P. Thomas ALS Lims#: 40975

Sample #	Sample Description	Sample Location	Quantity	*Condition G/D/SD	Friable Y/N
71	Wallboard	courtroom #3, office		G	Y
72	Terazzo Poured Flooring	Bathroom	64SF	G	N
73	12"x12" Brown FT & mastic	courtroom #5 offices	1,434SF	G	N
74	" "	" "	RM3	G	N
75	Wallboard	" "		G	Y
76	Wallboard w/skim coat	" "		G	Y
77	2'x2' ceiling tile	" "		G	Y
78	HVAC duct INS & mastic	ourhd courtroom #5 offices		G	Y/N
79	Fireproofing	" "		SD	Y
80	12"x12" FT, gray & mastic	victims waiting/lounge	120SF	G	N

*Condition - (G) Good (D) Damaged (SD) Significantly Damaged

Special Instructions:

Released By:	Company	Date/Time	Received By:	Company	Date/Time
PTh	ALS	5/9/13	A. Nichols	ALS	5/10/13
Released By:	Company	Date/Time	Received By:	Company	Date/Time

ASBESTOS FIELD INSPECTION FORM/CHAIN OF CUSTODY

ALS Project #: 10061 Project Name: 2nd Fl. Circuit Court Project Location: Portsmouth, VA.

Date Sampled: 5/9/13 Results Due: std. Inspector(s): P. Thomas ALS Lims#: 40975

Sample #	Sample Description	Sample Location	Quantity	*Condition G/D/SD	Friable Y/N
81	wall board	victims witness		G	Y
82	2'x2' ceiling tile	ourhd, victims witness		G	Y
83	Fireproofing	" "		SD	Y
84	CMU Block Filler	victims witness, hall		G	N
85	black coubase & adhesive	" "		G	N
86	1'x1' ceiling tile	main Hall, Eastend		D	Y

*Condition - (G) Good (D) Damaged (SD) Significantly Damaged

Special Instructions:

Released By:	Company	Date/Time	Received By:	Company	Date/Time
[signature]	ALS	5/9/13	A.M.	ALS	5/10/13
Released By:	Company	Date/Time	Received By:	Company	Date/Time

ASBESTOS FIELD INSPECTION FORM/CHAIN OF CUSTODY

ALS Project #: 10061 Project Name: Roof Project Location: Circuit court, Portsmouth

Date Sampled: 5/13/13 Results Due: std Inspector(s): P. Thomas ALS Lims#: 40997

Sample #	Sample Description	Sample Location	Quantity	*Condition G/D/SD	Friable Y/N
87	B.U.R.	southwest area	18,690sf	G	N
88	" "	" "	R87		
89	Perimeter Flashing	southwest side	1,392sf		
90	" "	southeast side	R89		
91	Parapet wall	Northwest side	R89		
92	Vent Flashing	southwest area	120Lf		
93	Perimeter Flashing	Southside of Penthouse	156sf		
94	Flash Caulking	" "	238Lf		
95	Expansion/Flashing	Northeast area	134 Lf		
96	B.U.R.	" "	R87	↓	↓

*Condition - (G) Good (D) Damaged (SD) Significantly Damaged

Special Instructions:

Released By:	Company	Date/Time	Received By:	Company	Date/Time
P Thomas	ALS	5/13/13	A. Nichols	ALS	5/14/13
Released By:	Company	Date/Time	Received By:	Company	Date/Time

ASBESTOS FIELD INSPECTION FORM/CHAIN OF CUSTODY

ALS Project #: 100601 Project Name: Roof Project Location: Circuit Court, Portsmouth

Date Sampled: 5/13/13 Results Due: Std. Inspector(s): J. Thomas ALS Lims#: 409497

Sample #	Sample Description	Sample Location	Quantity	*Condition G/D/SD	Friable Y/N
97	B.U.R	Northeast area	R87	G	N
98	Perimeter Flashing	northeast side	R89	↓	↓
99	Flashing	Roof Hatch	14Lf		
100	Parapet Flashing	north west side	R89		
101	Caulking	coping	580Lf	✓	✓

*Condition - (G) Good (D) Damaged (SD) Significantly Damaged

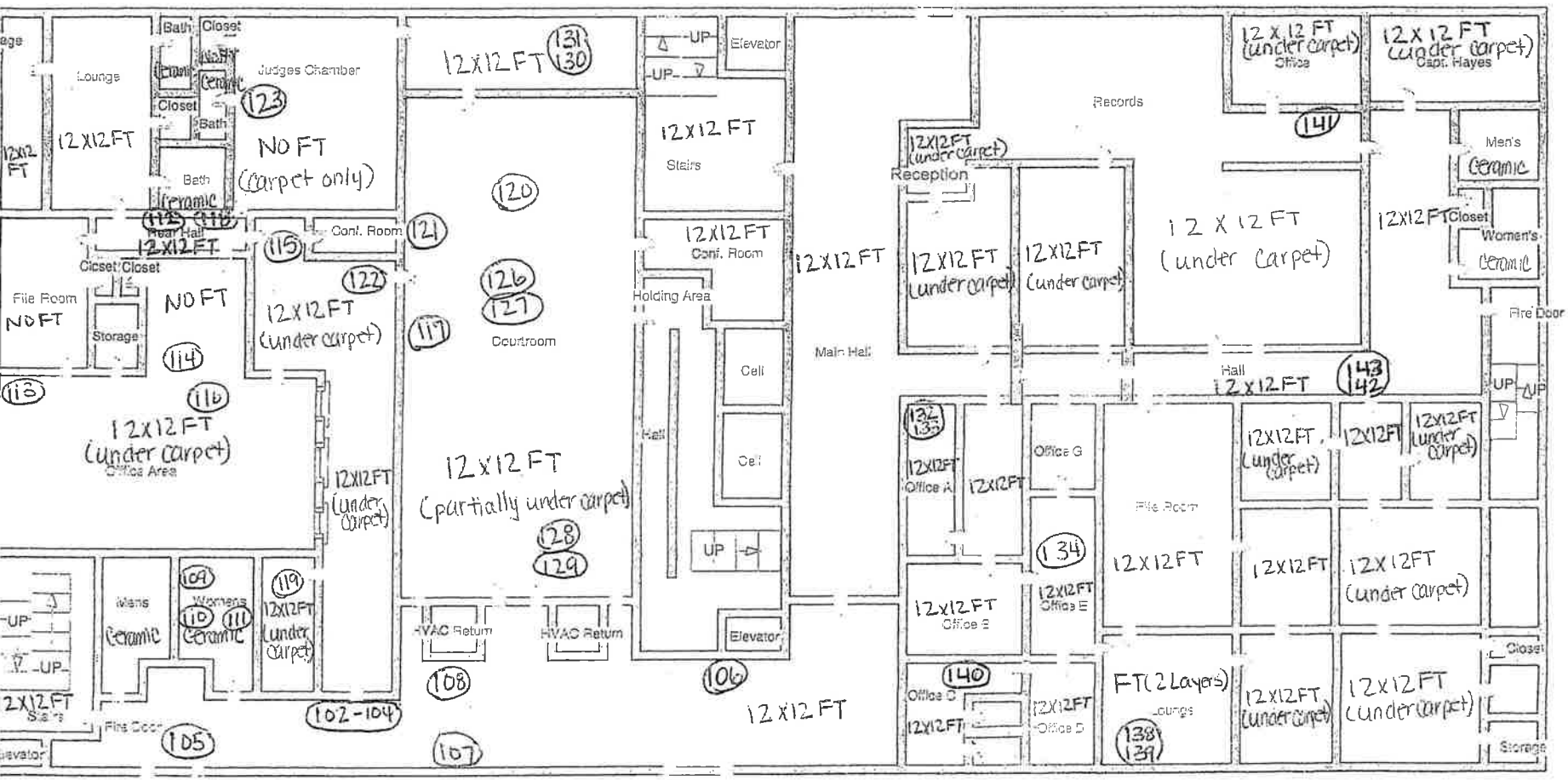
Special Instructions:

Released By:	Company	Date/Time	Received By:	Company	Date/Time
FH	ALS	5/13/13	A-N.	ALS	5/14/13

Released By:	Company	Date/Time	Received By:	Company	Date/Time

APPENDIX C – SAMPLE LOCATION DRAWINGS

GENERAL DISTRICT COURT BLDG.

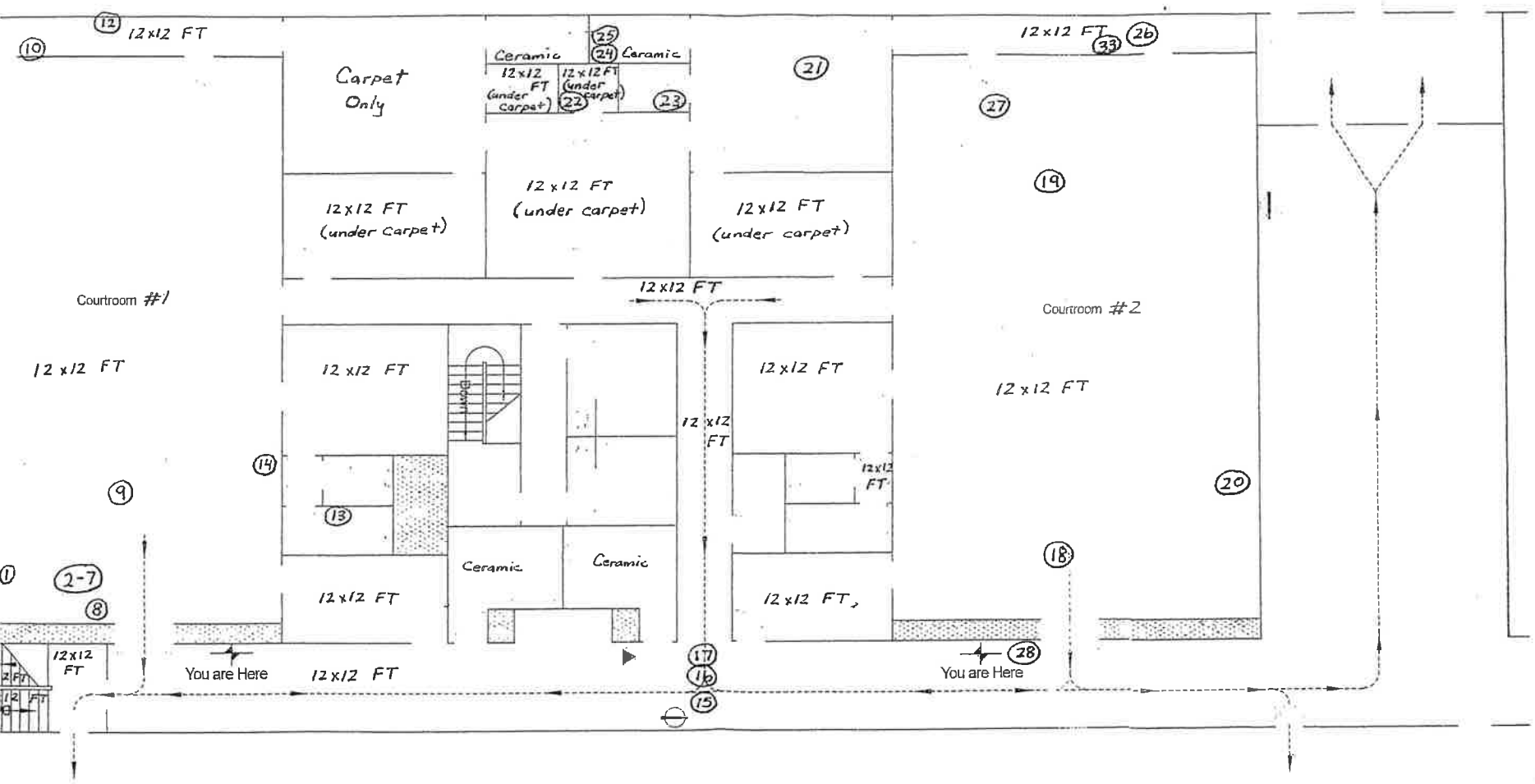


General District Court 1st Floor
(South East End)

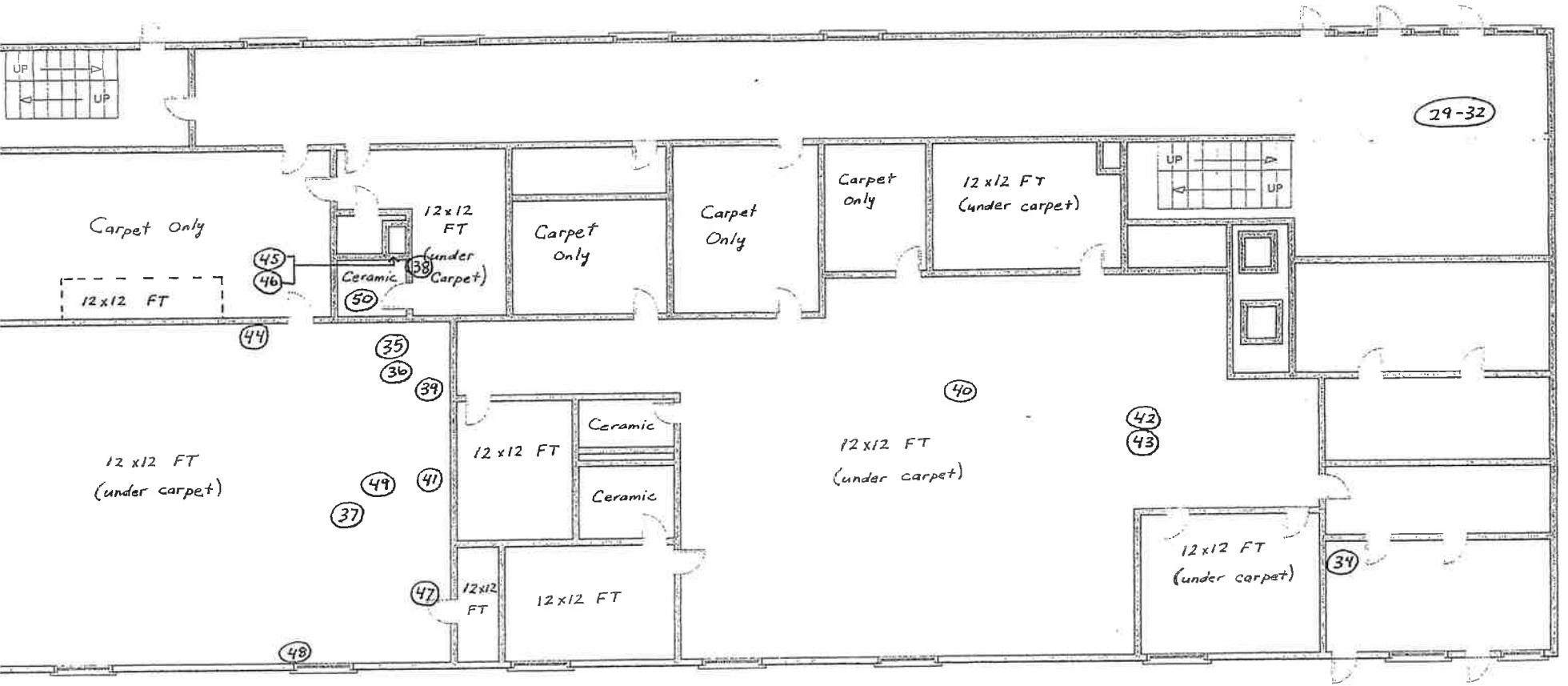
General Distric Court 1st Floor
(Northeast End)

APPENDIX D – SAMPLE LOCATION DRAWINGS

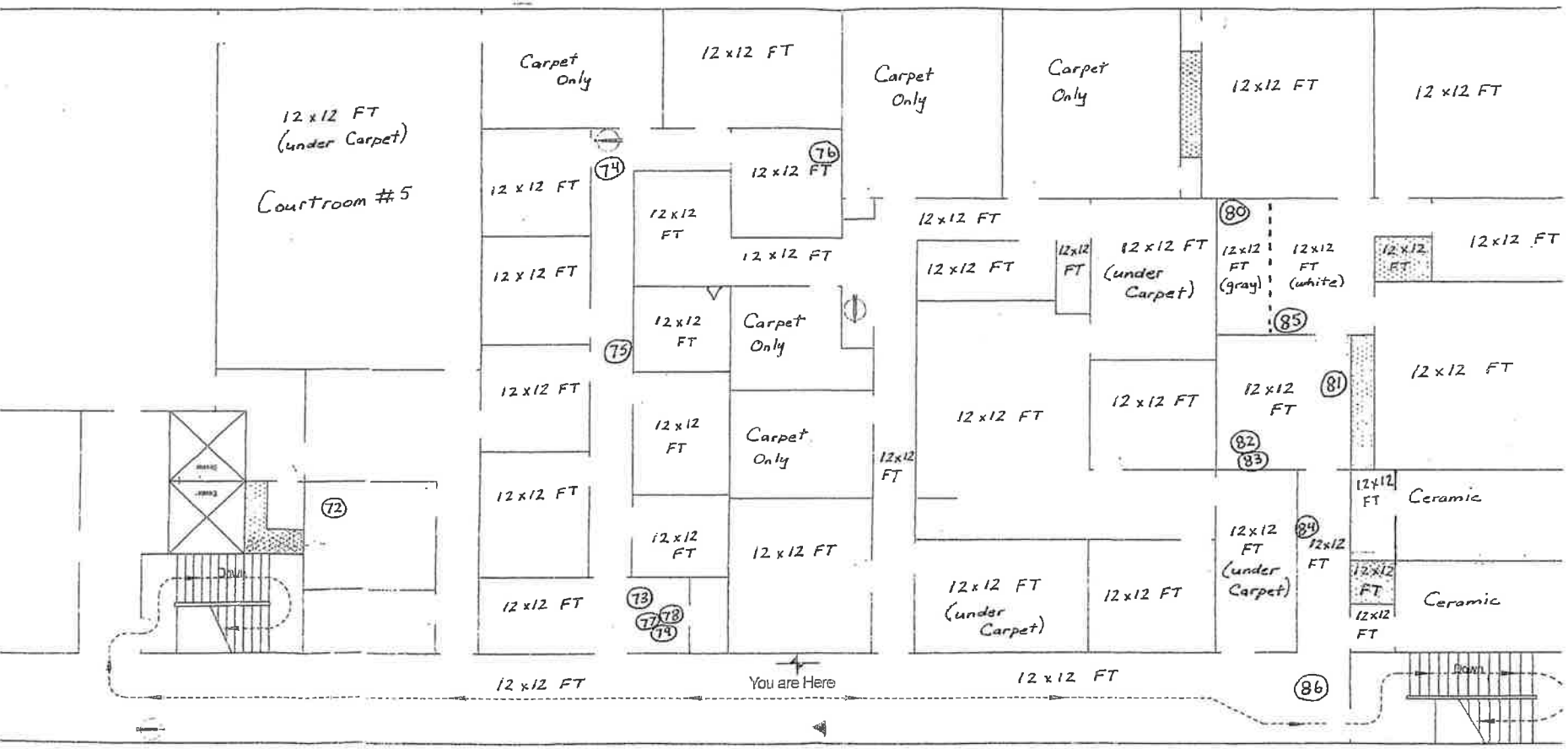
CIRCUIT COURT BLDG.



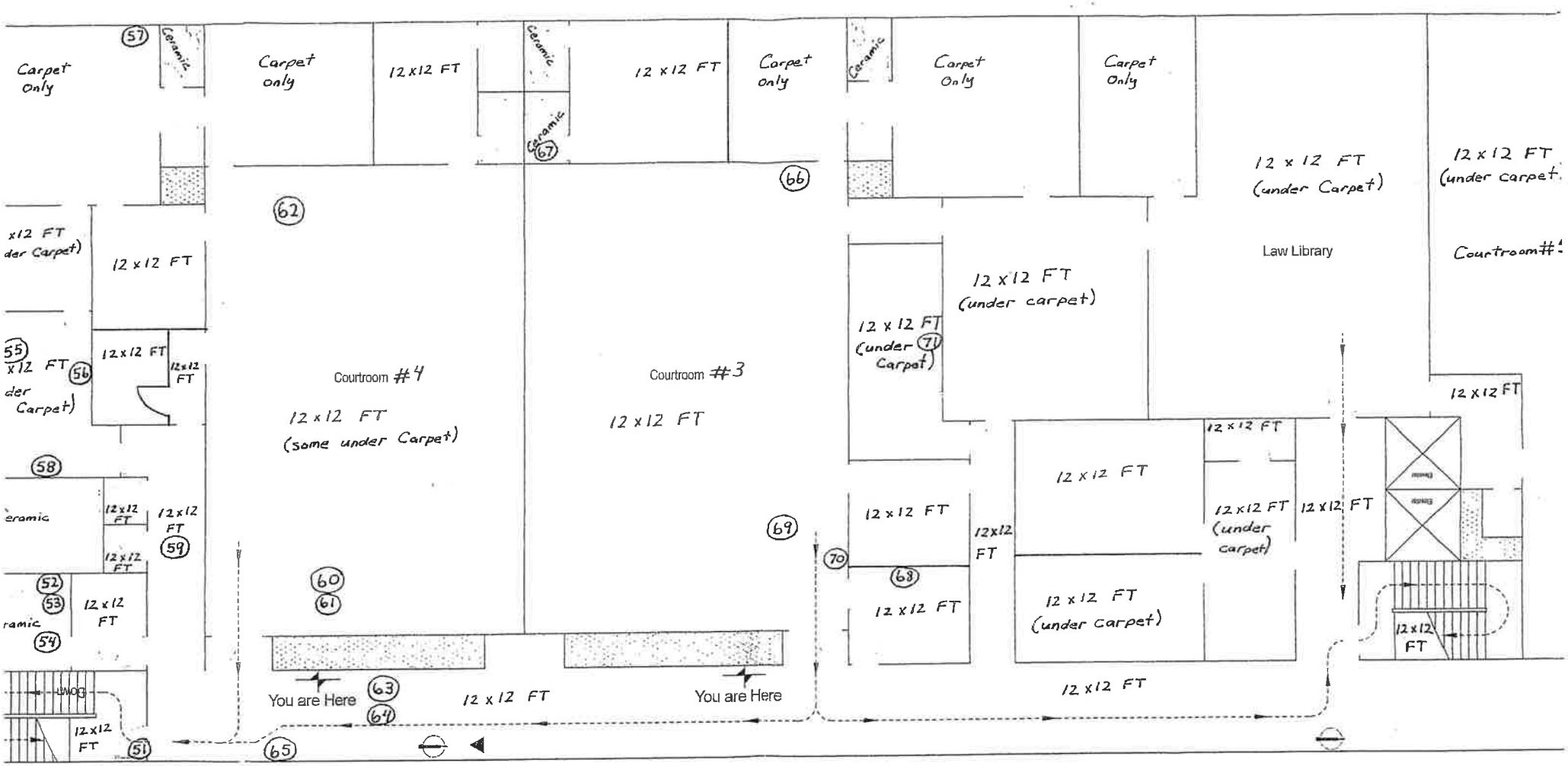
(CIRCUIT COURT
1ST FLOOR)



(CIRCUIT COURT
1ST FLOOR)

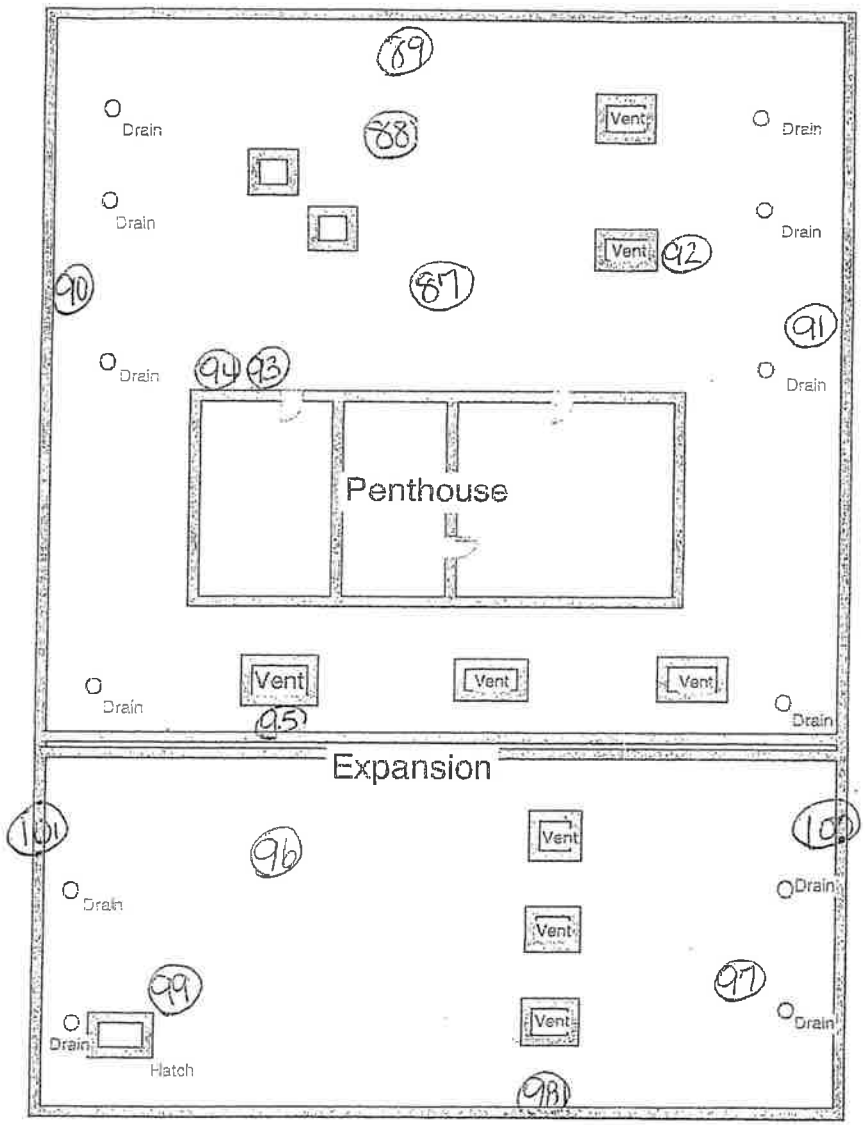


(CIRCUIT COURT
2ND FLOOR)



(CIRCUIT COURT 2ND FLOOR)

Circuit Court Building Roof



CIVIC CENTER COMPLEX
PORTSMOUTH VIRGINIA

INSPECTION REPORT

2019

APPLIED
LABORATORY
SERVICES

HAZARDOUS MATERIALS INSPECTION

PORTSMOUTH CIVIC CENTER COMPLEX

PORTSMOUTH, VIRGINIA 23704

Prepared For:
City of Portsmouth
Department of Engineering
801 Crawford Street
Portsmouth, Virginia 23704

Prepared By:
Applied Laboratory Services
4101 Granby Street, Suite 404
Norfolk, Virginia 23504

Report Number: ALS 19-12752
May 14, 2019

SIGNATURE PAGE

Applied Laboratory Services, conducted a Hazardous Materials Inspection from April 23 – May 1, 2019 of the Portsmouth Civic Complex in Portsmouth, Virginia in support of future demolition activities. The inspection included an investigation for locating suspect hazardous materials to specifically include asbestos, lead, PCBs and mercury.

This report was compiled by:

Thomas J. Martin
Environmental Professional

May 14, 2019
Date

VA. Asbestos Inspector License # 3303003888
VA. Lead Inspector License #3355000831

This report was reviewed by:

Paul D. Thomas
Operations Manager

May 14, 2019
Date

If there are any questions concerning this report, or if we may be of further assistance to your office, please feel free to contact our office at (757) 623-0121.

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XRF LEAD-BASED PAINT TESTING RESULTS

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SUMMARY

ASBESTOS

The inspection included a visual assessment and representative bulk sampling of suspected asbestos containing materials within the interior and exterior of the former J&D Building, Portsmouth City Jail and associated parking garages, Magistrate's Office, and the former Circuit Court roof in Portsmouth, Virginia. Areas inspected on April 23, 2019 included the former J&D building and the Sherriff's garage area. Areas inspected on April 24, 2019 included the Portsmouth City Jail and exterior areas. Areas inspected on April 25, 2019 included the Sherriff's Office Area, Portsmouth City Jail Roof and Penthouse, Corrections Office Area, and Portsmouth Police Garage. Areas inspected on April 30, 2019 included the 911 Hall Area, Sherriff's Garage Office, and the Magistrates Office. Areas inspected on May 1, 2019 included the Magistrates Office Roof, Portsmouth Police HQ Roof, Portsmouth City Jail exterior windows, J&D Roof and Penthouse, and Uniform Police Patrol Office Areas.

The buildings were constructed of a combination of steel beam construction and brick and Concrete Masonry Units (CMU) over parking garages and concrete slab. Asbestos suspected interior building materials included thermal systems insulation (TSI) and associated pipe elbows of various sizes, insulation, mastics and adhesives, CMU block filler/sealant, window glazing, caulks, 12"x12" floor tile and associated mastic adhesives, plaster walls and ceilings, 2'x2' ceiling tiles and tars. Asbestos suspected exterior building materials included window glazing, caulks, plaster, built up roof materials and vent and perimeter flashings.

The inspection was performed by Commonwealth of Virginia Licensed Asbestos Inspectors Thomas Martin and Tyler Baker. The purpose of the asbestos inspection was to identify and sample all suspected asbestos containing materials (ACM's), assess their condition (good, damaged, or significantly damaged) and estimate the amount of each material present. Efforts were utilized to locate and sample suspected ACM's.

LEAD

Commonwealth of Virginia Licensed Lead Inspector Thomas Martin conducted a lead-based paint survey testing representative painted surfaces within the interior and exterior of the former J&D Building, Portsmouth City Jail, and Magistrates Office.

The lead-based paint survey included a room-by-room investigation of painted surfaces and components. Tested surfaces included various trims, walls, ceilings, window and door components, structural members, piping and all other accessible painted surfaces. The lead-based paint survey was conducted utilizing an X-ray Fluorescence (XRF) lead-measuring instrument. The inspection included the United States Environmental Protection Agency (EPA) guidelines specify a positive determination of lead in paint when the lead content is equal to or greater than 1.0 milligrams of lead per square centimeter of painted surface (mg/cm^2) when measured by X-ray Fluorescence (XRF). Based on the approximate surface area of the deteriorated paint, the inspector assessed the condition as intact (good), fair, or poor. A total of

191 shots were taken (including device calibrations) of various painted surfaces throughout the interior and exterior of buildings.

POLYCHLORINATED BIPHENYLS (PCB)/MERCURY TUBES & THERMOSTATS

A visual inspection was conducted on site of accessible light fixture and thermostats within the former J&D Building, Portsmouth City Jail, and Magistrates Office. All lighting fixtures manufactured prior to January of 1979 must be clearly marked as "Non-PCB" or otherwise be treated as PCB-containing fixtures. Mercury is typically present in fluorescent light bulbs and thermostats associated with HVAC systems.

As part of the inspection, light fixtures, fluorescent bulbs, and thermostats were tallied to create an inventory of potential PCB/Mercury containing materials. No bulk sampling of materials for PCB or Mercury took place as part of this aspect of the inspection.

MISCELLANEOUS CHEMICAL IDENTIFICATION

Miscellaneous chemicals found throughout the buildings were identified during the inspection. Various custodial cleaning supplies and sanitation supplies were identified throughout the buildings inspected. Chemicals were safely sealed in their original containers. Each of the chemicals should be handled according to their respective Safety Data Sheet (SDS) to prevent injury, over-exposure, or chemical contamination.

ASBESTOS RESULTS SUMMARY

Friable Asbestos Containing Materials (ACM) were identified by Polarized Light Microscopy (PLM) analysis of bulk samples collected during the inspection. Friable asbestos containing materials were identified in the following buildings and are preceded by the inspection date:

- April 23, 2019 (Former J&D Building, Sheriff's Garage Area): 3" OD mudded elbow, 5" OD mudded elbow, 7" OD mudded elbow, fireproofing within 1st and 2nd floor wall cavities within Former J&D building.
- April 24, 2019 (Portsmouth City Jail and Exterior Building Areas): 2" OD mudded elbow, 3" OD mudded elbow.
- April 25, 2019 (Sheriff's Office Area, Portsmouth City Jail Roof and Penthouse, Corrections Office Area, and Portsmouth Police Garage): 5" OD mudded elbow, 7" OD mudded elbow, 4" OD mudded elbow.
- April 30, 2019 (911 Hall Area, Sheriff's Garage Office, and the Magistrates Office): 2" OD mudded elbow.
- May 1, 2019 (911 Hall Area, Sheriff's Garage Office, and the Magistrates Office): None.

Non-friable ACM's were identified by PLM analysis of bulk samples collected during the inspection. Non-friable asbestos was identified in the following buildings and are preceded by the inspection date:

- April 23, 2019 (Former J&D Building, Sheriff's Garage Area): Interior Door Caulk.
- April 24, 2019 (Portsmouth City Jail and Exterior Building Areas): 12"x12" black floor tile and associated mastic, 12"x12" white with gray speck floor tile and associated mastic, mastic associated with 12"x12" gray with white speck floor tile, and mastic associated with 12"x12" blue floor tile.
- April 25, 2019 (Sheriff's Office Area, Portsmouth City Jail Roof and Penthouse, Corrections Office Area, and Portsmouth Police Garage): Mastic associated with 12"x12" blue floor tile, mastic associated with 12"x12" brown with white speck floor tile, roof flashing adhesive.
- April 30, 2019 (911 Hall Area, Sheriff's Garage Office, Police Garage P&E Offices and the Magistrates Office): 12"x12" black floor tile and associated mastic, 12"x12" gray floor tile and associated mastic, mastic associated with 12"x12" tan with gray speck floor tile, and 5" OD pipe elbow tar.
- May 1, 2019 (911 Call Center Area, Sheriff's Garage Office, and the Magistrates Office): Exterior window glazing, 12"x12" black floor tile and associated mastic, mastic associated with 12"x12" white floor tile.

Applied Laboratory Services, L.L.C., recommends the removal of all ACM prior to commencement of any demolition work. If, during demolition activities, previously unidentified materials are encountered, it is strongly advised that said materials are analyzed for asbestos content prior to their disturbance. **A list of asbestos containing materials can be found in Table I, Table II, Table III, and Table IV below:**

TABLE I – Former J&D Building/Magistrates

Sample#	Material/ Description	Material/ Location	Friability	%/Type Asbestos & Assessed Condition	Homog. Quantity
13	Door Caulk	Former J&D Building 2nd Floor,	Non-friable	3% Chrysotile, Good	100 LF
60	Exterior Window Glazing	Exterior Former J&D Window	Non-friable	2% Chrysotile, Good	850 LF
171	12"x12" Black Floor Tile and associated mastic	Uniform Patrol Property & Evidence Submission Room Closet	Non-Friable	3% Chrysotile, Good	300 SF
173	Mastic associated with 12"x12" White Floor Tile	Uniform Patrol Side Hall	Non-friable	3% Chrysotile, Good	300 SF
Assumed	Fireproofing	Assumed to be in perimeter wall cavities on 1st and 2nd floor based on previous abatement documentation	Friable	10%-15% Chrystotile	1,000 SF

TABLE II – Portsmouth City Jail/Sheriff's Office Area

Sample#	Material/ Description	Material/ Location	Friability	%/Type Asbestos & Assessed Condition	Homog. Quantity
4, 17, 25, 38, 49	12"x12" Black Floor Tile and associated mastic	3rd Floor Elevator Landing, 4th Floor North Stairwell, 5th Floor Elevator Landing, 6th Floor Rear Elevator Landing, 7th Floor Rear Elevator Landing	Non-friable	2%-5% Chrysotile, Good	4,000 SF
10, 19, 40	Mastic associated with 12"x12" Gray with White Speck Floor Tile	3rd Floor Deputy Office, 4th Floor Deputy Office, 7th Floor Deputy Office	Non-friable	2%-3% Chrysotile, Good	220 SF
11, 20, 28, 34	12"x12" White with Gray Speck Floor Tile and associated mastic	3rd Floor Deputy Office Restroom, 4th Floor Deputy Office, 5th Floor Deputy Office Restroom, 6th Floor Deputy Office Restroom	Non-friable	3%-5% Chrysotile, Good	300 SF

13, 21, 29, 45	2" OD Mudded Elbow	3rd Floor Side Chase, 4th Floor Side Chase, 5th Floor Side Chase, 7th Floor Side Chase	Friable	10%-20% Chrysotile, Good	45 Count
23, 31, 44	3" OD Mudded Elbow	5th Floor Elevator Landing, 6th Floor Elevator Landing, 7th Floor Elevator Landing,	Friable	10% Chrysotile, Good	14 Count
41	Mastic associated with 12"x12" Blue Floor Tile	7th Floor Deputy Office Restroom	Non-friable	2% Chrysotile, Good	50 SF
66	Mastic associated with 12"x12" Blue Floor Tile	Sheriff's Office Men's Restroom	Non-friable	2% Chrysotile, Good	80 SF
76	Mastic associated with 12"x12" Brown with White Speck Floor Tile	2nd Floor Medical Foyer	Friable	2% Chrysotile, Good	1,000 SF
77	5" OD Mudded Elbow	2nd Floor Medical Office	Friable	15% Chrysotile, Good	3 Count
140	Window Glazing	Exterior, Portsmouth City Jail	Non-Friable	2% Chrysotile, Good	750 LF
81	Flashing Adhesive	Portsmouth City Jail Roof	Friable	2% Chrysotile, Good	1,100 SF

TABLE III – (Portsmouth Police Garage & P&E Offices)

Sample#	Material/ Description	Material/ Location	Friability	%/Type Asbestos & Assessed Condition	Homog. Quantity
107, 118	Mastic associated with 12"x12" Tan with Gray Speck Floor Tile	Police Garage Vehicle Maintenance Coordinator Office, P&E Office	Non-friable	2%-5% Chrysotile, Good	350 SF
93	7" OD Mudded Elbow	Police Garage	Friable	15% Chrysotile	1 Count
95	4" OD Mudded Elbow	Police Garage	Friable	25% Chrysotile	4 Count

TABLE IV – April 30, 2019 (Sheriff's Garage Area/911 Call Center Area)

Sample#	Material/ Description	Material/ Location	Friability	%/Type Asbestos & Assessed Condition	Homog. Quantity
96, 97,	12"x12" Black Floor Tile and associated mastic	Hall, 911 Call Center Area	Non-friable	3%-5% Chrysotile, Good	4,000 SF
103	12"x12" Gray Floor Tile and associated mastic (Elevated Computer Floor)	Homicide Storage Room, Adjacent Room (Within 911 Call Center Area)	Non-friable	3%-5% Chrysotile, Good	1,200 SF
39	3" OD Mudded Elbow	Sheriff's Garage Area	Friable	10% Chrysotile, Good	10 Count

31, 32	Door Caulk	Sheriff's Garage at Elevator Equipment Room, Sheriff's Garage at North Stairwell	Non-friable	2%-3% Chrysotile, Good	100 LF
40, 46, 72, 73	5" OD Mudded Elbow	Sheriff's Garage Area, Back Fenced Area within Sheriff's Garage Area	Friable	10%-40% Chrysotile, Good	18 Count
43	7" OD Mudded Elbow	Sheriff's Garage Area	Friable	15% Chrysotile, Good	2 Count
117	5" OD Pipe Elbow Tar	Entrance to 911 Call Center Area	Non-friable	8% Chrysotile	2 SF

LF = Linear Feet
SF = Square Feet

LEAD PAINT RESULTS SUMMARY

Painted surfaces were inspected utilizing a Niton XL-300 X-Ray Fluorescence (XRF) Paint Analyzer to measure the lead content of surface coatings on representative homogenous building components on the interior and exterior of the former J&D Building, Portsmouth City Jail, and Magistrates Office. A homogeneous component is a building material that is uniform in color, texture, and appears identical in every respect.

The sampling methodology for this survey was based on the EPA guidelines specify a positive determination of lead in paint when the lead content is equal to or greater than 1.0 milligrams of lead per square centimeter of painted surface (mg/cm^2) when measured by X-ray Fluorescence (XRF). The main entrance was considered to be the front entrance and all walls or building components are labeled A, B, C, or D with A facing the street address of the building and proceeding clockwise.

Following the inspection and testing of various surfaces Lead-Based Paint (LBP) was detected on inmate cell bars, inmate cell bed, basement level stairwell railing, basement level stairwell stair frame, painted concrete pillar in the Portsmouth Police Garage, painted curb in the Sheriff's Garage, painted handrail in mechanical room within the Sheriff's Garage, and painted ladder within the former J&D building stairwell. Although LBP was not identified on each tested surface, surfaces identical to the tested surfaces should be treated similarly. Other surfaces that did not contain lead-based paint contained lower levels of lead and are considered lead containing paints; the requirements of the OSHA Lead in Construction Standard, 29 CFR 1926.62 must be complied by all contractors disturbing painted surfaces, as OSHA does not have a minimum concentration reporting limit. Painted surfaces were found to range in condition from good to poor with peeling or cracking paint identified on some surfaces. Lead Paint Inspection data results are located within the appendices of this report. **A list of identified Lead-Based Paint can be found in Table V below:**

TABLE V – List of Lead-Based Paint

Sample #	Tested Surface	Sample Location	Reported Concentration (mg/cm2)	EPA Regulatory Limit (mg/cm2)
17	Cell Bars	8th Floor	1.7	1.0
26	Cell Bars	7th Floor	1.6	1.0
39	Inmate Bed	6th Floor	1.0	1.0
46	Cell Bars	5th Floor	1.5	1.0
81	Railing	Basement Level Stairwell	10.7	1.0
82	Stair Frame	Basement Level Stairwell	5.8	1.0
97	Painted Pillar	Police Garage	2.8	1.0
98	Painted Pillar	Police Garage	2.6	1.0
100	Painted Pillar	Police Garage	4.4	1.0
133	Painted Curb	Sheriff's Garage	9.2	1.0
142	Painted Handrail	Sheriff's Garage, Mechanical	6.62	1.0
175	Painted Ladder	2nd Floor, Former J&D Building Stairwell	13.4	1.0

POLYCHLORINATED BIPHENYLS (PCB)/MERCURY TUBES & THERMOSTATS RESULTS SUMMARY

Included in the inspection was an inventory of potential PCB and/or Mercury containing lighting fixtures and thermostats within the four buildings inspected. During the inspection, the following were identified:

- Light Fixtures/Ballasts – 835
- Fluorescent Light Bulbs –1,669
- Thermostats-2

Although these fixtures pose no threat to health intact, they should be handled with care. Fluorescent light bulbs not marked with green bands on either end of the bulb should be considered to contain Mercury. Disposal of lights, lighting fixtures, and thermostats should conform to the appropriate EPA regulation to prevent future contamination.

MISCELLANEOUS CHEMICAL IDENTIFICATION SUMMARY

As part of the Hazardous Materials Inspection, the inspectors noted two 55-gallon drums containing an unknown liquid within the boiler room. In addition, general custodial cleaning products were observed on site. These custodial cleaning products are located in various areas throughout the building. At the time of the inspection, all of the cleaning products were safely stored inside their proper containers. All materials should be handled, packaged and disposed by appropriately trained workers and a qualified remediation contractor.

INSPECTION TECHNIQUES

The asbestos inspection was comprised of seven parts:

1. Reviewing the results of any previous investigations for ACM and inspecting building records which were made available for our evaluation.
2. Visual inspection of readily accessible spaces within the specified areas of the building. Documentation of physical description and location of suspect ACM.
3. Testing all specified surfaces for friability and determining the condition of suspect materials.
4. Sampling and documentation of observable suspect friable or non-friable materials by Environmental Protection Agency guidelines.
5. Recording assessment information.
6. Completing the appropriate laboratory analyses.
7. Preparing the report.

The results of the inspection are outlined in Appendixes of this report. Please note, in the absence of sample collection and analyses, OSHA's asbestos standard identifies some materials as being presumed asbestos-containing materials (PACM). PACM includes any thermal system insulation (TSI), any surfacing material, and any resilient flooring found in buildings constructed prior to 1980.

This inspection entailed the use of minimum destructive sampling techniques; therefore materials that were only accessible by significant destructive sampling techniques were not evaluated. If, during demolition activities, suspect materials are encountered it is strongly advisable that said materials be analyzed for asbestos content prior to their disturbance. Due to being physically or visually inaccessible, the following areas were excluded from this inspection report:

1. The interior of all mechanical equipment.
2. The interior of all electrical equipment.
3. The interior of all HVAC equipment.

Applied Laboratory Services performed the lead-based paint (LBP) inspection in accordance with the United States Environmental Protection Agency (EPA) guidelines specify a positive determination of lead in paint when the lead content is equal to or greater than 1.0 milligrams of lead per square centimeter of painted surface (mg/cm^2) when measured by X-ray Fluorescence (XRF).

ASBESTOS ANALYSIS AND LABORATORY INFORMATION

TESTING LABORATORIES

Applied Laboratory Services, L.L.C., participates and is proficient in the National Institute of Standards and Technology (NIST) Proficiency Test for bulk analysis. In addition to this program Applied Laboratory Services, L.L.C., requires that its laboratories compare their performance by PLM with that of other laboratories and maintains an in-house quality control/quality assurance program. The intra/interlaboratory programs serve to monitor all asbestos analysts and continually test their skills. In conjunction, ten percent of the bulk samples analyzed are to be reanalyzed monthly and statistical data maintained on the subsequent results, to include ratings of each analyst's performance. These samples shall be blind unknowns to the analyst, but their true compositions are known to other members of the laboratory in order to compare results.

QUALITATIVE ASSESSMENT METHOD

Samples are first viewed separately under a stereomicroscope for the presence of observable fibers. A portion of the sample is then mounted on a slide in a liquid of known refractive index. The analyst then utilizes optical properties and identification methods including, but not limited to, morphological characteristics, angles of extinction, sign of elongation, and dispersion staining colors to verify the presence/absence of asbestos.

QUANTITATIVE ASSESSMENT METHOD

The analyst expresses an estimate of fibrous and non-fibrous materials as an area percent of all material present. Since the distribution of material will not be homogenous on the slide, the analyst combines quantitative estimates from both the gross and microscopic examinations. This estimation method is in accordance with the Asbestos Hazard Emergency Response Act (AHERA) regulations (40 CFR Part 763) and has been successfully applied to the analysis of EPA Bulk Sample Analysis Quality Assurance Program samples.

LABORATORY RESULTS

The laboratory results of each sample can be obtained from the Appendices of this report. The analytical results form identifies the types of asbestos contained within a sample and the nature of other fibrous materials. These "other" material components include binders, fillers, and may include forms of asbestos other than chrysotile or amosite.

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APPLICABLE ASBESTOS REGULATIONS

Asbestos presents a significant risk to human health as a result of air emissions from one or more sources. As such, it is considered a hazardous air pollutant and is subject to EPA regulations under the "National Emission Standards for Hazardous Air Pollutants" (NESHAP) which was promulgated as a result of Section 112 of the Clean Air Act (CAA).

The Asbestos NESHAP rule makes a distinction between an ACM that would readily release asbestos fibers when damaged or disturbed, described as "Friable", and an ACM that is unlikely to result in significant fiber release, described as "Non-friable". A dry, ACM that can be crumbled, pulverized, or reduced to powder by hand pressure is considered Friable. A Non-friable ACM cannot be crumbled, pulverized, or reduced to powder by hand pressure.

Friable ACMs include TSI and surfacing materials which have been applied by spraying or trowling.

Non-friable ACMs can be further categorized as Category I or Category II. Category I Non-friable materials include any asbestos-containing packings, gaskets, resilient floor coverings or asphalt roofing products which contain more than 1 percent asbestos. Category II Non-friable materials include any asbestos-containing materials other than those listed as Category I.

Regulated Asbestos-Containing Material (RACM) is:

- Friable asbestos material,
- Category I non-friable ACM that has become friable,
- Category I non-friable ACM that will be or has been subjected to sanding, grinding, cutting or abrading, or
- Category II non-friable ACM that has a high probability of becoming or has become crumbled, pulverized, or reduced to powder by the forces expected to act on the materials in the course of demolition or renovation operations.

The Occupational Safety and Health Administration (OSHA) have asbestos standards which protect the health of employees. Under these standards, the building/facility owner may be required to notify tenants, employees, or subcontractors of the presence, location, and quantity of ACM or PACM at the work sites in their buildings and facilities. In addition, the standards separate work involving asbestos into four (4) classes of activities. Each class is associated with increasing potential for exposures and is matched with increasingly stringent control requirements:

Class I **Removal Activities** involving TSI and/or Surfacing ACM.

Class II **Removal Activities** involving ACM which is neither TSI and/or Surfacing ACM. This includes, but is not limited to, materials such as flooring and roofing materials.

Class III **Repair and Maintenance Activities**, where ACM (any type) may be disturbed.

Class IV **Maintenance and Custodial Activities** during which employees contact ACM and/or in which the employee is required to clean up waste and debris containing ACM.

All Class I, II, and III asbestos work must be conducted within regulated areas. Each of these asbestos operations has engineering controls and work practices that are required. Different levels of respiratory protection and employee training are also required, dependent on the Class of activities.

Once a material has been identified as an ACM, recommendations are made based on the type of material and the condition of the material. The recommendations are based on the following table:

Table 1. Recommendations
1. Required and recommended removal methods for CLASS I removals, which involve Thermal Systems Insulation and/or Surfacing ACM/PACM, when inside of a building.
2. Required and recommended removal methods for CLASS I removals, which involve Thermal Systems Insulation and/or Surfacing ACM/PACM, when outside of a building.
3. Required and recommended removal methods for CLASS II removals. This involves ACM/PACM, which is neither Thermal Systems Insulation, and/or Surfacing ACM/PACM. This includes, but is not limited to, the removal of asbestos-containing wallboard, floor tile and sheeting, roofing and siding shingles, and built-up roofing.
4. Recommended removal methods for Incidental Roofing Material, which is flashing. The material must not be sanded, abraded, or ground, but must be removed using manual methods that do not render the material friable. Otherwise, removal of material becomes a CLASS II activity.
5. Required and recommended practices for CLASS IV activities such as Maintenance and Custodial operations. This includes demolition of in-place NESHAP Category I and II Non-friable materials in good condition, during which employees contact ACM/PACM and/or are required to clean up waste and debris containing ACM/PACM.
6. NESHAP Category I or II non-friable ACM with a low probability of becoming crumbled, pulverized, or reduced to powder during demolition need not be removed. However, if the probability is high that the material will become crumbled, pulverized or reduced to powder during demolition, it must be considered "Regulated Asbestos Containing Material" (RACM) and is subject to Asbestos NESHAP. If the material is to be sanded, ground, cut or abraded during demolition the material is also considered "RACM" and is subject to the Asbestos NESHAP[1]
7. Required and recommended practices for CLASS III activities such as Repair and Maintenance operations. This includes operations where the ACM, including TSI and surfacing ACM/PACM, may be disturbed. Maintenance activities that disrupt the matrix of ACM or PACM, or generate visible debris from ACM or PACM are classified as CLASS III.

[1] U.S. Environmental Protection Agency. National Emission Standards for Hazardous Air Pollutants (NESHAP), Asbestos Regulations. 40 CFR Part 61, Subpart M, November 20, 1990.

8. OSHA no longer regulates ACM cements, coatings, and mastics. These materials, if demolished in place, or removed substantially intact, are also NOT regulated by NESHAP, and can be handled as construction debris.

The following work practices should be followed whenever demolition/renovation activities involving RACM occur (State regulations may require more stringent actions or reporting.):

- Notify EPA of intention to demolish/renovate,
- Remove all RACM from a facility being demolished or renovated before any disruptive activity begins or before access to the material is precluded,
- Keep RACM adequately wet before, during, and after removal operation,
- Conduct demolition/renovation activities in a manner which produces no visible emissions to the outside air, and
- Handle and dispose of all RACM in an approved manner.

APPLICABLE LEAD PAINT REGULATIONS

Lead is a prevalent toxic substance associated with certain paints, various types of piping, some soils and dusts (particularly around the perimeter of houses/buildings and within one mile of major roadways), vicinity of railroad tracks, pesticide application areas, industrial facilities, gasoline stations, and other media found in the vicinity of the subject site.

A number of regulations govern lead-based paint activities. In 1977 the Consumer Product Safety Commission, acting under the authority of the Consumer Product Safety Act, banned the sale of "lead-based paints" (coatings with lead content of greater than 0.009%, per CPSC definition) to consumers and banned the use of such paints where consumers may have direct access to painted surfaces (households, schools, recreation areas, toys, furniture, etc.). The Uniform Statewide Building Code (USBC) of the Code of Virginia requires proper management of lead-based paint in dwellings, dwelling units, and childcare facilities, including fences and outbuildings.

In addition to the above regulations which mostly concern residential exposure, OSHA regulations control construction activities involving lead from paint (including paint with less than 0.5% lead content) and other lead-containing materials, in residential, commercial, or industrial situations.

Available studies indicate that dust is the most important lead transmission vehicle and risk factor. Lead-contaminated dust can be generated in large quantities during renovation projects, even at locations where paint contains less than 0.5% lead. Therefore, it is advisable that renovation projects that disturb painted surfaces should be conducted under the assumption that lead is present in paint at the site.

BUILDING INSPECTION DISCLAIMER & ENDORSEMENTS

Applied Laboratory Services, L.L.C., is pleased to assist the City of Portsmouth with the hazardous materials building inspection at the subject property outlined in this report. This report has been prepared for the exclusive use of the City of Portsmouth, and their agents for specific application to the property assessed. This work has been performed using reasonable care within the scope of work and in accordance with budgetary limitations. Applied Laboratory Services, L.L.C., strives to conduct services in keeping with regulatory boundaries, industry standards and in accordance with generally accepted industrial hygiene practice. No other warranty, expressed or implied, is made.

Our conclusions and recommendations are based upon our observations at the site, any reviewed documentation, test results, interviews, other information provided and our previous experience. The information contained in this document is based on physical inspections conducted by Applied Laboratory Services, L.L.C. We certify that our findings with regard to the presence or absence of visible and physically accessible asbestos is based on our inspection and the laboratory analysis of bulk samples taken during the inspection, unless otherwise noted in the report. All specified sampling areas which are reported to contain no asbestos have been inspected and, based on the inspection and analysis of suspect materials encountered or other reviews as described in this report were found to contain no ACM.

Applied Laboratory Services, L.L.C., has analyzed the information obtained in this audit in keeping with existing guidelines and regulations, but cannot accurately predict what actions or interpretations any given agency may take presently, or what standards and practices may apply to the site in the future. Should such variations in regulations, guidelines or site conditions become apparent in the future, it will be necessary to reevaluate our conclusions and recommendations based upon additional analyses and on-site observations as appropriate. The pricing for this work is based on the absence of personal liability of the preparers with respect to the work, and the understanding that any claim associated with the work shall look solely to Applied Laboratory Services, L.L.C.

Applied Laboratory Services, L.L.C., acknowledges that it maintained in full force and effect at the time the services described in the inspection were performed, professional liability (errors and omissions) insurance with minimum policy limits of one million dollars each occurrence and one million dollars in the aggregate. Applied Laboratory Services, L.L.C., currently maintains such insurance in full force and effect and currently has no plan to terminate such insurance in the foreseeable future. Applied Laboratory Services, L.L.C.'s liability in connection with this inspection shall cease after a period of three years from the date of completion of the study, and Applied Laboratory Services' total aggregate liability in connection with the inspection shall not exceed that amount actually covered by insurances on any such claim.

Please note that no environmental investigation can wholly eliminate uncertainty regarding the potential for adverse environmental conditions in connection with a property. This study is intended to reduce, but not eliminate, such uncertainty. The investigation recognizes reasonable limits of time and cost, and is designed to provide an appropriate level of inquiry, based on existing industry standards.

APPENDICES

APPENDIX A

ASBESTOS ANALYTICAL RESULTS
&
CHAIN OF CUSTODY FORMS

APPLIED LABORATORY SERVICES

Commonwealth of Virginia Asbestos
Analytical Laboratory # 3333000153
NVLAP Lab # 200515-0

Certificate of Analysis

Analysis of Bulk Building Materials by Polarized Light Microscopy Techniques
EPA Test Method (EPA/600/R-93/116)

ALS Account:	01-163	**LIMS ID:**	ALS-2019-63997
Customer:	ALS Consulting 4101 Granby Street Norfolk, VA 23504	**Project Name:**	Civic Center
		ProjectNo:	12752
		Location:	Former J & D Bldg.
P O:		**Samples Received:**	4/23/2019
TAT:	ALS Standard	**Date Analyzed:**	4/24/2019

Lab ID / Layer	Cust. ID / Homogenous	Sample Date / Description	Sample Location	Non Fibrous	Non Asbestos Fibers	Asbestos Fibers
63997-1	1	4/23/2019	2nd Fl. Cage Rm.	5% MICA 68% NON FIBROUS MATERIAL	2% FIBROUS GLASS 25% CELLULOSE FIBER	None Detected
1	Yes	Beige Fibrous Fireproofing				
63997-2	2	4/23/2019	2nd Fl. Cage Rm.	5% MICA 68% NON FIBROUS MATERIAL	25% CELLULOSE FIBER 2% FIBROUS GLASS	None Detected
1	Yes	Beige Fibrous Fireproofing				
63997-3	3	4/23/2019	2nd Fl. Cage Rm.	5% MICA 68% NON FIBROUS MATERIAL	25% CELLULOSE FIBER 2% FIBROUS GLASS	None Detected
1	Yes	Beige Fibrous Fireproofing				
63997-4	4	4/23/2019	2nd Fl. Cage Rm.	1% TALC 99% NON FIBROUS MATERIAL		<1% CHRYSOTILE
1	Yes	White Granular Surfacing Material				
< 1% = trace.						
63997-5	5	4/23/2019	2nd Fl. Cage Rm.	1% TALC 99% NON FIBROUS MATERIAL		None Detected
1	Yes	White Granular Surfacing Material				
63997-6	6	4/23/2019	2nd Fl. Cage Rm.	100% NON FIBROUS MATERIAL		None Detected
1	Yes	White Pliable Caulking				
63997-7	7	4/23/2019	2nd Fl. Cage Rm.	100% NON FIBROUS MATERIAL		None Detected
1	Yes	White Pliable Caulking				
63997-8	8	4/23/2019	2nd Fl. Cage Rm.	100% NON FIBROUS MATERIAL		None Detected
1	Yes	Black Cementitious Window Ledge				
63997-9	9	4/23/2019	2nd Fl. Cage Rm.	100% NON FIBROUS MATERIAL		None Detected
1	Yes	Black Cementitious Window Ledge				

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Lab ID / Layer	Cust. ID / Homogenous	Sample Date / Description	Sample Location	Non Fibrous	Non Asbestos Fibers	Asbestos Fibers
63997-10	10	4/23/2019	2nd Fl. Cage Rm.	100% NON FIBROUS MATERIAL		None Detected
1	Yes	Black Pliable Cove Base				
63997-10	10	4/23/2019	2nd Fl. Cage Rm.	100% NON FIBROUS MATERIAL		None Detected
2	Yes	Yellow Adhesive Mastic				
Sample analyzed as individual layers.						
63997-11	11	4/23/2019	2nd Fl. Cage Rm.	90% NON FIBROUS MATERIAL	10% CELLULOSE FIBER	None Detected
1	No	Beige & White Fibrous/Granular Drywall				
63997-12	12	4/23/2019	2nd Fl. Cage Rm.	100% NON FIBROUS MATERIAL		None Detected
1	Yes	White Granular Surfacing Material				
63997-12	12	4/23/2019	2nd Fl. Cage Rm.	88% NON FIBROUS MATERIAL	10% CELLULOSE FIBER 2% FIBROUS GLASS	None Detected
2	No	Beige & White Fibrous/Granular Drywall				
Sample analyzed as individual layers.						
63997-13	13	4/23/2019	2nd Fl. Cage Rm.	97% NON FIBROUS MATERIAL		3% CHRYSOTILE
1	Yes	Beige Pliable Caulking				
63997-14	14	4/23/2019	Next to Elevator	100% NON FIBROUS MATERIAL		None Detected
1	Yes	Grey Granular 12 x 12 Floor Tile				
63997-15	15	4/23/2019	Hall	100% NON FIBROUS MATERIAL		None Detected
1	Yes	Grey Granular 12 x 12 Floor Tile				
63997-15	15	4/23/2019	Hall	98% NON FIBROUS MATERIAL	2% CELLULOSE FIBER	None Detected
2	Yes	Yellow Adhesive Mastic				
Sample analyzed as individual layers.						
63997-16	16	4/23/2019	Hall	100% NON FIBROUS MATERIAL		None Detected
1	Yes	Grey Granular 12 x 12 Floor Tile				
63997-17	17	4/23/2019	Child Support Interview Room	100% NON FIBROUS MATERIAL		None Detected
1	Yes	Black Pliable Cove Base				
63997-17	17	4/23/2019	Child Support Interview Room	100% NON FIBROUS MATERIAL		None Detected
2	Yes	Yellow Adhesive Mastic				
Sample analyzed as individual layers.						
63997-18	18	4/23/2019	Next to Elevator	100% NON FIBROUS MATERIAL		None Detected
1	Yes	Black Pliable Cove Base				

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Lab ID / Layer	Cust. ID / Homogenous	Sample Date / Description	Sample Location	Non Fibrous	Non Asbestos Fibers	Asbestos Fibers
63997-18	18	4/23/2019	Next to Elevator	100% NON FIBROUS MATERIAL		None Detected
2	Yes	Beige Adhesive Mastic				
Sample analyzed as individual layers.						
63997-18	18	4/23/2019	Next to Elevator	2% NON FIBROUS MATERIAL	98% CELLULOSE FIBER	None Detected
3	Yes	White Fibrous Paper				
Sample analyzed as individual layers.						
63997-19	19	4/23/2019	Hall	100% NON FIBROUS MATERIAL		None Detected
1	Yes	Beige & Grey Pliable Cove Base				
63997-19	19	4/23/2019	Hall	100% NON FIBROUS MATERIAL		None Detected
2	Yes	Beige Adhesive Mastic				
Sample analyzed as individual layers.						
63997-20	20	4/23/2019	Hall	100% NON FIBROUS MATERIAL		None Detected
1	Yes	Beige & Grey Pliable Cove Base				
63997-20	20	4/23/2019	Hall	100% NON FIBROUS MATERIAL		None Detected
2	Yes	Beige Adhesive Mastic				
Sample analyzed as individual layers.						
63997-21	21	4/23/2019	Child Support Interview Rm.	100% NON FIBROUS MATERIAL		None Detected
1	Yes	White Pliable Caulking				
63997-22	22	4/23/2019	Storage Rm.	100% NON FIBROUS MATERIAL		None Detected
1	Yes	White Granular Surfacing Material				
63997-22	22	4/23/2019	Storage Rm.	88% NON FIBROUS MATERIAL	10% CELLULOSE FIBER 2% FIBROUS GLASS	None Detected
2	No	Beige & White Fibrous/Granular Drywall				
Sample analyzed as individual layers.						
63997-23	23	4/23/2019	Hall at Elevators	90% NON FIBROUS MATERIAL	10% CELLULOSE FIBER	None Detected
1	No	Beige & White Fibrous/Granular Drywall				
63997-24	24	4/23/2019	Hall	35% NON FIBROUS MATERIAL	45% CELLULOSE FIBER 20% FIBROUS GLASS	None Detected
1	No	White Fibrous/Granular 2 x 2 Ceiling Tile				
63997-25	25	4/23/2019	Hall	35% NON FIBROUS MATERIAL	45% CELLULOSE FIBER 20% FIBROUS GLASS	None Detected
1	No	White Fibrous/Granular 2 x 2 Ceiling Tile				
63997-26	26	4/23/2019	Hall	75% NON FIBROUS MATERIAL	25% FIBROUS GLASS	None Detected
1	Yes	White Fibrous/Granular Fireproofing				

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Lab ID / Layer	Cust. ID / Homogenous	Sample Date / Description	Sample Location	Non Fibrous	Non Asbestos Fibers	Asbestos Fibers
63997-27	27	4/23/2019	Rear Stairwell	35% NON FIBROUS MATERIAL	45% CELLULOSE FIBER 20% FIBROUS GLASS	None Detected
1	No	White Fibrous/Granular 2 x 2 Ceiling Tile				
63997-28	28	4/23/2019	Hall	100% NON FIBROUS MATERIAL		None Detected
1	Yes	White Pliable Caulking				
63997-29	29	4/23/2019	Garage	100% NON FIBROUS MATERIAL		None Detected
1	Yes	White Granular Surfacing Material				
63997-30	30	4/23/2019	Garage	100% NON FIBROUS MATERIAL		None Detected
1	Yes	White Granular Surfacing Material				
63997-31	31	4/23/2019	Garage at Elevator Equip Rm.	98% NON FIBROUS MATERIAL		2% CHRYSOTILE
1	Yes	Beige Granular Caulking				
63997-32	32	4/23/2019	Garage at North Stairwell	98% NON FIBROUS MATERIAL		2% CHRYSOTILE
1	Yes	Beige Granular Caulking				
63997-33	33	4/23/2019	Garage	30% METAL FOIL 20% NON FIBROUS MATERIAL	10% FIBROUS GLASS 40% CELLULOSE FIBER	None Detected
1	No	Grey & White Fibrous/Granular Jacket				
63997-33	33	4/23/2019	Garage	2% NON FIBROUS MATERIAL	98% FIBROUS GLASS	None Detected
2	Yes	Yellow Fibrous Insulation				
Sample analyzed as individual layers.						
63997-34	34	4/23/2019	Garage	30% METAL FOIL 20% NON FIBROUS MATERIAL	40% CELLULOSE FIBER 10% FIBROUS GLASS	None Detected
1	No	Grey & White Fibrous/Granular Jacket				
63997-34	34	4/23/2019	Garage	2% NON FIBROUS MATERIAL	98% FIBROUS GLASS	None Detected
2	Yes	Yellow Fibrous Insulation				
Sample analyzed as individual layers.						
63997-35	35	4/23/2019	Garage	30% METAL FOIL 20% NON FIBROUS MATERIAL	40% CELLULOSE FIBER 10% FIBROUS GLASS	None Detected
1	No	Grey & White Fibrous/Granular Jacket				
63997-35	35	4/23/2019	Garage	2% NON FIBROUS MATERIAL	98% FIBROUS GLASS	None Detected
2	Yes	Yellow Fibrous Insulation				
Sample analyzed as individual layers.						
63997-36	36	4/23/2019	Garage	30% METAL FOIL 20% NON FIBROUS MATERIAL	40% CELLULOSE FIBER 10% FIBROUS GLASS	None Detected
1	No	Grey & White Fibrous/Granular Jacket				

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Lab ID / Layer	Cust. ID / Homogenous	Sample Date / Description	Sample Location	Non Fibrous	Non Asbestos Fibers	Asbestos Fibers
63997-36	36	4/23/2019	Garage	2% NON FIBROUS MATERIAL	98% FIBROUS GLASS	None Detected
2	Yes	Yellow Fibrous Insulation				
Sample analyzed as individual layers.						
63997-37	37	4/23/2019	Garage	20% METAL FOIL 20% NON FIBROUS MATERIAL	50% CELLULOSE FIBER 10% FIBROUS GLASS	None Detected
1	No	Beige & Grey Fibrous/Granular Jacket				
63997-37	37	4/23/2019	Garage	2% NON FIBROUS MATERIAL	98% FIBROUS GLASS	None Detected
2	Yes	Yellow Fibrous Insulation				
Sample analyzed as individual layers.						
63997-38	38	4/23/2019	Garage	20% METAL FOIL 20% NON FIBROUS MATERIAL	50% CELLULOSE FIBER 10% FIBROUS GLASS	None Detected
1	No	Beige & Grey Fibrous/Granular Jacket				
63997-38	38	4/23/2019	Garage	2% NON FIBROUS MATERIAL	98% FIBROUS GLASS	None Detected
2	Yes	Yellow Fibrous Insulation				
Sample analyzed as individual layers.						
63997-39	39	4/23/2019	Garage	80% NON FIBROUS MATERIAL	10% FIBROUS GLASS	10% CHRYSOTILE
1	Yes	Beige Fibrous/Granular Insulation				
63997-40	40	4/23/2019	Garage	20% NON FIBROUS MATERIAL	80% CELLULOSE FIBER	None Detected
1	No	Beige Fibrous/Granular Jacket				
63997-40	40	4/23/2019	Garage	80% NON FIBROUS MATERIAL	10% FIBROUS GLASS	10% CHRYSOTILE
2	No	Beige Fibrous/Granular Insulation				
Sample analyzed as individual layers.						
63997-41	41	4/23/2019	Garage	30% METAL FOIL 20% NON FIBROUS MATERIAL	40% CELLULOSE FIBER 10% FIBROUS GLASS	None Detected
1	No	Grey & White Fibrous/Granular Jacket				
63997-41	41	4/23/2019	Garage	2% NON FIBROUS MATERIAL	98% FIBROUS GLASS	None Detected
2	Yes	Yellow Fibrous Insulation				
Sample analyzed as individual layers.						
63997-42	42	4/23/2019	Garage	30% METAL FOIL 20% NON FIBROUS MATERIAL	40% CELLULOSE FIBER 10% FIBROUS GLASS	None Detected
1	No	Grey & White Fibrous/Granular Jacket				
63997-42	42	4/23/2019	Garage	2% NON FIBROUS MATERIAL	98% FIBROUS GLASS	None Detected
2	Yes	Yellow Fibrous Insulation				
Sample analyzed as individual layers.						
63997-43	43	4/23/2019	Garage	85% NON FIBROUS MATERIAL		15% CHRYSOTILE
1	Yes	Beige Fibrous/Granular Insulation				
63997-44	44	4/23/2019	Garage	20% METAL FOIL 20% NON FIBROUS MATERIAL	50% CELLULOSE FIBER 10% FIBROUS GLASS	None Detected
1	No	Beige & Grey Fibrous/Granular Jacket				

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Lab ID / Layer	Cust. ID / Homogenous	Sample Date / Description	Sample Location	Non Fibrous	Non Asbestos Fibers	Asbestos Fibers
63997-44	44	4/23/2019	Garage	2% NON FIBROUS MATERIAL	98% FIBROUS GLASS	None Detected
2	Yes	Yellow Fibrous Insulation				
Sample analyzed as individual layers.						
63997-45	45	4/23/2019	Garage	20% NON FIBROUS MATERIAL	80% CELLULOSE FIBER	None Detected
1	No	Beige Fibrous/Granular Jacket				
63997-45	45	4/23/2019	Garage	80% NON FIBROUS MATERIAL	20% FIBROUS GLASS	None Detected
2	No	Beige Fibrous/Granular Insulation				
Sample analyzed as individual layers.						
63997-46	46	4/23/2019	Garage	20% METAL FOIL 30% NON FIBROUS MATERIAL	40% CELLULOSE FIBER 10% FIBROUS GLASS	None Detected
1	No	Beige & Grey Fibrous/Granular Jacket				
63997-46	46	4/23/2019	Garage	85% NON FIBROUS MATERIAL		15% CHRYSOTILE
2	Yes	Beige Fibrous Insulation				
Sample analyzed as individual layers.						
63997-47	47	4/23/2019	Garage	75% NON FIBROUS MATERIAL	25% FIBROUS GLASS	None Detected
1	Yes	White Fibrous Fireproofing				
63997-48	48	4/23/2019	Garage	75% NON FIBROUS MATERIAL	25% FIBROUS GLASS	None Detected
1	Yes	White Fibrous Fireproofing				
63997-49	49	4/23/2019	Mech Rm.	100% NON FIBROUS MATERIAL		None Detected
1	Yes	White Granular Surfacing Material				
63997-50	50	4/23/2019	Mech Rm.	100% NON FIBROUS MATERIAL		None Detected
1	No	Beige Pliable Paint				
63997-51	51	4/23/2019	Mech Rm.	30% METAL FOIL 20% NON FIBROUS MATERIAL	40% CELLULOSE FIBER 10% FIBROUS GLASS	None Detected
1	No	Grey & White Fibrous/Granular Jacket				
63997-51	51	4/23/2019	Mech Rm.	2% NON FIBROUS MATERIAL	98% FIBROUS GLASS	None Detected
2	Yes	Yellow Fibrous Insulation				
Sample analyzed as individual layers.						
63997-52	52	4/23/2019	Mech Rm.	30% METAL FOIL 20% NON FIBROUS MATERIAL	40% CELLULOSE FIBER 10% FIBROUS GLASS	None Detected
1	No	Grey & White Fibrous/Granular Jacket				
63997-52	52	4/23/2019	Mech Rm.	2% NON FIBROUS MATERIAL	98% FIBROUS GLASS	None Detected
2	Yes	Yellow Fibrous Insulation				
Sample analyzed as individual layers.						
63997-53	53	4/23/2019	Mech Rm.	20% METAL FOIL 10% NON FIBROUS MATERIAL	60% CELLULOSE FIBER 10% FIBROUS GLASS	None Detected
1	No	Beige & Grey Fibrous/Granular Jacket				

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Lab ID / Layer	Cust. ID / Homogenous	Sample Date / Description	Sample Location	Non Fibrous	Non Asbestos Fibers	Asbestos Fibers
63997-53	53	4/23/2019	Mech Rm.	2% NON FIBROUS MATERIAL	98% FIBROUS GLASS	None Detected
2	Yes	Yellow Fibrous Insulation				
Sample analyzed as individual layers.						
63997-54	54	4/23/2019	Mech Rm.	30% NON FIBROUS MATERIAL	70% FIBROUS GLASS	None Detected
1	No	Beige Fibrous/Granular Jacket				
63997-54	54	4/23/2019	Mech Rm.	80% NON FIBROUS MATERIAL	20% FIBROUS GLASS	None Detected
2	Yes	Grey Granular Insulation				
Sample analyzed as individual layers.						
63997-54	54	4/23/2019	Mech Rm.	75% NON FIBROUS MATERIAL	25% SYNTHETIC FIBER	None Detected
3	Yes	Beige Fibrous/Granular Insulation				
Sample analyzed as individual layers.						
63997-55	55	4/23/2019	Mech Rm.	30% METAL FOIL 20% NON FIBROUS MATERIAL	40% CELLULOSE FIBER 10% FIBROUS GLASS	None Detected
1	No	Grey & White Fibrous/Granular Jacket				
63997-55	55	4/23/2019	Mech Rm.	2% NON FIBROUS MATERIAL	98% FIBROUS GLASS	None Detected
2	Yes	Yellow Fibrous Insulation				
Sample analyzed as individual layers.						
63997-56	56	4/23/2019	Mech Rm.	30% METAL FOIL 20% NON FIBROUS MATERIAL	40% CELLULOSE FIBER 10% FIBROUS GLASS	None Detected
1	No	Grey & White Fibrous/Granular Jacket				
63997-56	56	4/23/2019	Mech Rm.	2% NON FIBROUS MATERIAL	98% FIBROUS GLASS	None Detected
2	Yes	Yellow Fibrous Insulation				
Sample analyzed as individual layers.						
63997-57	57	4/23/2019	Mech Rm.	20% METAL FOIL 20% NON FIBROUS MATERIAL	50% CELLULOSE FIBER 10% FIBROUS GLASS	None Detected
1	No	Beige & Grey Fibrous/Granular Jacket				
63997-57	57	4/23/2019	Mech Rm.	2% NON FIBROUS MATERIAL	98% FIBROUS GLASS	None Detected
2	Yes	Yellow Fibrous Insulation				
Sample analyzed as individual layers.						
63997-58	58	4/23/2019	Mech Rm.	2% NON FIBROUS MATERIAL	98% FIBROUS GLASS	None Detected
1	Yes	White Fibrous Insulation				
63997-59	59	4/23/2019	Mech Rm.	30% METAL FOIL 20% NON FIBROUS MATERIAL	10% FIBROUS GLASS 40% CELLULOSE FIBER	None Detected
1	No	Grey & White Fibrous/Granular Jacket				
63997-59	59	4/23/2019	Mech Rm.	2% NON FIBROUS MATERIAL	98% FIBROUS GLASS	None Detected
2	Yes	Yellow Fibrous Insulation				
Sample analyzed as individual layers.						
63997-60	60	4/23/2019	Mech Rm.	20% METAL FOIL 20% NON FIBROUS MATERIAL	50% CELLULOSE FIBER 10% FIBROUS GLASS	None Detected
1	No	Grey & White Fibrous/Granular Jacket				

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Lab ID / Layer	Cust. ID / Homogenous	Sample Date / Description	Sample Location	Non Fibrous	Non Asbestos Fibers	Asbestos Fibers
63997-60	60	4/23/2019	Mech Rm.	2% NON FIBROUS MATERIAL	98% FIBROUS GLASS	None Detected
2	Yes	Yellow Fibrous Insulation				
Sample analyzed as individual layers.						
63997-61	61	4/23/2019	Mech Rm.	30% NON FIBROUS MATERIAL	70% FIBROUS GLASS	None Detected
1	No	White Fibrous/Granular Jacket				
63997-61	61	4/23/2019	Mech Rm.	75% NON FIBROUS MATERIAL	25% FIBROUS GLASS	None Detected
2	Yes	Beige Fibrous/Granular Insulation				
Sample analyzed as individual layers.						
63997-62	62	4/23/2019	Mech Rm.	30% NON FIBROUS MATERIAL	70% FIBROUS GLASS	None Detected
1	No	White Fibrous/Granular Jacket				
63997-62	62	4/23/2019	Mech Rm.	2% NON FIBROUS MATERIAL	98% FIBROUS GLASS	None Detected
2	Yes	Yellow Fibrous Insulation				
Sample analyzed as individual layers.						
63997-63	63	4/23/2019	Mech Rm.	100% NON FIBROUS MATERIAL		None Detected
1	Yes	Grey Granular Silver Coat				
63997-64	64	4/23/2019	Mech Rm.	35% NON FIBROUS MATERIAL	45% CELLULOSE FIBER 20% FIBROUS GLASS	None Detected
1	No	Beige & White Fibrous/Granular 2 x 2 Ceiling Tile				
63997-65	65	4/23/2019	Mech Rm. (Under Poly)	20% METAL FOIL 40% NON FIBROUS MATERIAL	30% CELLULOSE FIBER 10% FIBROUS GLASS	None Detected
1	No	Grey & White Fibrous/Granular Jacket				
63997-65	65	4/23/2019	Mech Rm. (Under Poly)	2% NON FIBROUS MATERIAL	98% FIBROUS GLASS	None Detected
2	Yes	Yellow Fibrous Insulation				
Sample analyzed as individual layers.						
63997-66	66	4/23/2019	Maint. Shop	30% NON FIBROUS MATERIAL	40% CELLULOSE FIBER 30% FIBROUS GLASS	None Detected
1	No	Beige & White Fibrous/Granular 2 x 2 Ceiling Tile				
63997-67	67	4/23/2019	Maint. Shop	80% NON FIBROUS MATERIAL	20% CELLULOSE FIBER	None Detected
1	Yes	White Adhesive Mastic				
63997-68	68	4/23/2019	Maint. Shop Office	100% NON FIBROUS MATERIAL		None Detected
1	Yes	Black Pliable Cove Base				
63997-68	68	4/23/2019	Maint. Shop Office	100% NON FIBROUS MATERIAL		None Detected
2	Yes	Beige Adhesive Mastic				
Sample analyzed as individual layers.						

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Lab ID	Cust. ID	Sample Date	Sample Location	Non Fibrous	Non Asbestos Fibers	Asbestos Fibers
Layer	Homogenous	Description				
63997-69	69	4/23/2019	Maint. Shop Office	90% NON FIBROUS MATERIAL	10% CELLULOSE FIBER	None Detected
1	No	Beige & White Fibrous/Granular Drywall				
63997-70	70	4/23/2019	Back Fenced Garage	90% NON FIBROUS MATERIAL	10% CELLULOSE FIBER	None Detected
1	No	Beige & White Fibrous/Granular Drywall				
63997-71	71	4/23/2019	Back Fenced Garage	60% NON FIBROUS MATERIAL	40% FIBROUS GLASS	None Detected
1	Yes	White Fibrous Fireproofing				
63997-71	71	4/23/2019	Back Fenced Garage	100% NON FIBROUS MATERIAL		None Detected
2	Yes	Grey Cementitious Concrete				
Sample analyzed as individual layers.						
63997-72	72	4/23/2019	Back Fenced Garage	30% NON FIBROUS MATERIAL	70% CELLULOSE FIBER	None Detected
1	No	White Fibrous/Granular Jacket				
63997-72	72	4/23/2019	Back Fenced Garage	70% NON FIBROUS MATERIAL	10% CELLULOSE FIBER	20% CHRYSOTILE
2	Yes	White Fibrous Insulation				
Sample analyzed as individual layers.						
63997-73	73	4/23/2019	Back Fenced Garage	20% NON FIBROUS MATERIAL	80% CELLULOSE FIBER	None Detected
1	No	White Fibrous/Granular Jacket				
63997-73	73	4/23/2019	Back Fenced Garage	60% NON FIBROUS MATERIAL		40% CHRYSOTILE
2	Yes	White Fibrous Insulation				
Sample analyzed as individual layers.						
63997-74	74	4/23/2019	Back Fenced Garage	98% NON FIBROUS MATERIAL	2% SYNTHETIC FIBER	None Detected
1	Yes	White Adhesive Mastic				

Analyst: Kim Mantey

NIST Signatory: K. Mantey, Senior Microscopist

Date Released: 4/24/2019

This Certificate of Analysis presents analytical data covered by this laboratory's accreditation under the National Voluntary Laboratory Accreditation Program (NVLAP). Detection, identification, and quantification of asbestos in certain building materials (e.g., floor tiles, caulk, asphalts, roofing materials) by PLM is difficult due to interfering matrix components. PLM technique has an estimated detection limit of 1% (v:v). Fibers smaller than 0.25 um cannot be detected; hence, correlative techniques should be considered for data verification. Non-detection of asbestos in certain materials should be verified by analytical electron microscopy techniques (refer to AHERA criteria). Quantifications are estimated by calibrated visual estimate, unless otherwise noted. The estimated measurement of uncertainty in PLM analysis is available upon request. The data reported herein relates only to those samples analyzed. Any information supplied by the Customer can affect the validity of results. Results apply to the sample as received. This report shall not be reproduced, except in full, without the written permission of senior managers of this laboratory. This report shall not be used to claim product endorsement by NVLAP or any agency of the U.S. Government.

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ASBESTOS FIELD INSPECTION FORM/CHAIN OF CUSTODY

ALS Project #: 12752 Project Name: ~~Portsmouth Jail~~ Civic Center Project Location: Former J&D Bldg.

Date Sampled: 4/23/19 Results Due: Standard Inspector(s): T. Martin/T. Baker ALS Lims #: 63997

Sample #	Sample Description	Sample Location	Quantity	*Condition G/D/SD	Friable Y/N
1	fireproofing	2nd fl. cage rm.	12,000 SF	G	Y
2	fireproofing	"	R-1	G	Y
3	fireproofing	"	R-1	G	Y
4	CMU Black Sealant	"	7,000 SF	G	N
5	CMU Black Sealant	"	R-4	G	N
6	window caulk	"	360 LF	G	N
7	window caulk	"	R-6	G	N
8	window ledge	"	60 LF	G	N
9	window ledge	"	R-8	G	N
10	black covebase w/ adhesive	"	400 LF	G	N

*Condition - (G) Good (D) Damaged (SD) Significantly Damaged

Special Instructions:

Released By:	Company	Date/Time	Received By:	Company	Date/Time
T. Martin	ALS	4/23/19	Cameron Hawkins	ALS	4/23/19
Released By:	Company	Date/Time	Received By:	Company	Date/Time

ASBESTOS FIELD INSPECTION FORM/CHAIN OF CUSTODY

ALS Project #: 12752 Project Name: Civic Center Project Location: Former J&D Bldg.

Date Sampled: 4/23/19 Results Due: Standard Inspector(s): T. Martin / T. Baker ALS Lims #: 63997

Sample #	Sample Description	Sample Location	Quantity	*Condition G/D/SD	Friable Y/N
11	drywall wall	11	5200 SF	G	Y
12	drywall ceiling	11	60 SF	G	Y
13	door caulk	11	50 LF	G	N
14	12x12 Blue w/ gray streak FT w/ Adhesive	Next to elevator	1,300 SF	G	N
15	12x12 Blue w/ gray streak FT w/ Adhesive	Hall	R-14	G	N
16	12x12 Blue w/ gray streak FT w/ Adhesive	Hall	R-14	G	N
17	Black Cove Base w/ Mastic	Child Support Interview Room	~~400 LF~~ R-10	G	N
18	Black Cove Base w/ Mastic	Next to elevator	R-17	G	N
19	Tan Cove Base w/ Mastic	Hall	320 LF	G	N
20	Tan Cove Base w/ Mastic	Hall	R19	G	N

*Condition - (G) Good (D) Damaged (SD) Significantly Damaged

Special Instructions:

Released By:	Company	Date/Time	Received By:	Company	Date/Time
T. Martin	ALS	4/23/19	Cameron Hawkins	ALS	4/23/19

ASBESTOS FIELD INSPECTION FORM/CHAIN OF CUSTODY

ALS Project #: 12752 Project Name: Civic Center Project Location: Former J&D Bldg.

Date Sampled: 4/23/19 Results Due: Standard Inspector(s): T. Martin / T. Baker ALS Lims #: 63997

Sample #	Sample Description	Sample Location	Quantity	*Condition G/D/SD	Friable Y/N
21	door caulk	child support interview rm.	200 LF	G	N
22	drywall wall	storage rm.	R-11	G	Y
23	drywall wall	hall @ elevators	R-11	G	Y
24	2"x2" small pinhole CT	hall	2,000 SF	G	Y
25	"	hall	R-24	G	Y
26	fireproofing	hall	R-1	G	Y
27	2"x2" small pinhole & fissure CT	rear stairwell	150 SF	G	Y
28	window caulk	hall	40 LF	G	N
29	CMU block sealant	garage		G	N
30	CMU block sealant	garage		G	N

*Condition - (G) Good (D) Damaged (SD) Significantly Damaged

Special Instructions:

Released By:	Company	Date/Time	Received By:	Company	Date/Time
T. Martin	ALS	4/23/19	Cameron Hawkins	ALS	4/23/19
Released By:	Company	Date/Time	Received By:	Company	Date/Time

ASBESTOS FIELD INSPECTION FORM/CHAIN OF CUSTODY

ALS Project #: 12752 Project Name: Civic Center Project Location: Former J&D Bldg.

Date Sampled: 4/23/19 Results Due: Standard Inspector(s): T. Martin / T. Baker ALS Lims #: 63997

Sample #	Sample Description	Sample Location	Quantity	*Condition G/D/SD	Friable Y/N
31	door caulk	garage @ elevator equip rm.		G	N
32	door caulk	garage @ north stairwell		G	N
33	4" OD pipe insulation	garage		G	Y
34	4" OD pipe insulation	garage		G	Y
35	5" OD pipe insulation	garage		G	Y
36	5" OD pipe insulation w/ mastic	garage		G	Y
37	5" OD pipe insulation	garage		G	Y
38	3" OD pipe insulation	garage		G	Y
39	3" OD mudded elbow	garage		G	Y
40	5" OD mudded elbow	garage		G	Y

*Condition - (G) Good (D) Damaged (SD) Significantly Damaged

Special Instructions:

Released By:	Company	Date/Time	Received By:	Company	Date/Time
T. Martin	ALS	4/23/19	Cameron Hawkins	ALS	4/23/19

ASBESTOS FIELD INSPECTION FORM/CHAIN OF CUSTODY

ALS Project #: 12752 Project Name: Civic Center Project Location: former J&D Bldg.

Date Sampled: 4/23/19 Results Due: Standard Inspector(s): T. Martin / T. Baker ALS Lims #: 63997

Sample #	Sample Description	Sample Location	Quantity	*Condition G/D/SD	Friable Y/N
41	7' OD pipe insulation	garage		G	Y
42	7' OD pipe insulation	garage		G	Y
43	7' OD mudded elbow	garage		G	Y
44	12' OD pipe insulation	garage		D	Y
45	7' OD mudded flange	garage		G	Y
46	5' OD elbow	garage		G	Y
47	fireproofing	garage		G	Y
48	fireproofing	garage		G	Y
49	CMU block sealant	mech. rm.		G	N
50	door caulk	mech rm.		G	N

*Condition - (G) Good (D) Damaged (SD) Significantly Damaged

Special Instructions:

Released By:	Company	Date/Time	Received By:	Company	Date/Time
T. Martin	ALS	4/23/19	Cameron Hawkins	ALS	4/23/19
Released By:	Company	Date/Time	Received By:	Company	Date/Time

ASBESTOS FIELD INSPECTION FORM/CHAIN OF CUSTODY

ALS Project #: 12752 Project Name: Civic Center Project Location: Former J.C. Bldg.

Date Sampled: 4/23/19 Results Due: Standard Inspector(s): T. Martin / T. Baker ALS Lims #: 63997

Sample #	Sample Description	Sample Location	Quantity	*Condition G/D/SD	Friable Y/N
51	7" OD pipe insulation	mech rm.		G	Y
52	7" OD pipe insulation	mech rm.		G	Y
53	2½" OD pipe insulation	mech rm.		G	Y
54	15" OD pipe insulation	mech rm.		G	Y
55	7" OD (new) pipe insulation	mech rm.		G	Y
56	9½" OD pipe insulation	mech rm.		G	Y
57	pipe intersection box	mech rm.	16 SF	D	Y
58	boiler panel batt insulation	mech rm.	16 SF	G	Y
59	3" OD pipe insulation	mech rm.		G	Y
60	3½" OD pipe insulation	mech rm.		G	Y

*Condition - (G) Good (D) Damaged (SD) Significantly Damaged

Special Instructions:

Released By:	Company	Date/Time	Received By:	Company	Date/Time
T. Martin	ALS	4/23/19	Cameron Hawkins	ALS	4/23/19
Released By:	Company	Date/Time	Received By:	Company	Date/Time

ASBESTOS FIELD INSPECTION FORM/CHAIN OF CUSTODY

ALS Project #: 12752 Project Name: Civic Center Project Location: Former J+D Bldg.

Date Sampled: 4/23/19 Results Due: Standard Inspector(s): T. Martin / T. Baker ALS Lims #: 63997

Sample #	Sample Description	Sample Location	Quantity	*Condition G/D/SD	Friable Y/N
61	mastic duct work	mech. rm.		D	Y
62	13' OD pipe insulation	mech rm.		G	Y
63	pipe silvercoat	mech rm.		SD	N
64	2"x2" small pinhole/fissure CT	mech rm.	3,800 SF	D	Y
65	small boiler insulation	mech rm. (under poly)	40 SF	D	Y
66	2"x2" small pinhole/fissure CT	maint. shop	12-64	G	Y
67	white sink mastic	maint. shop	4 SF	G	N
68	black cove base w/adhesive	maint. shop office	60 LF	G	N
69	drywall wall	maint. shop office	400 SF	G	Y
70	drywall wall	back fence & garage	775 SF	G	Y

*Condition - (G) Good (D) Damaged (SD) Significantly Damaged

Special Instructions:

Released By:	Company	Date/Time	Received By:	Company	Date/Time
T. Martin	ALS	4/23/19	Cameran Hawkins	ALS	4/23/19
Released By:	Company	Date/Time	Received By:	Company	Date/Time

ASBESTOS FIELD INSPECTION FORM/CHAIN OF CUSTODY

ALS Project #: 12752 Project Name: Civic Center Project Location: Former J+D Bldg.

Date Sampled: 4/23/19 Results Due: Standard Inspector(s): T. Martin / T. Baker ALS Lims #: 63997

Sample #	Sample Description	Sample Location	Quantity	*Condition G/D/SD	Friable Y/N
71	fireproofing	back fence garage		G	Y
72	5" OD pipe insulation	back fence garage	250 LF	G	Y
73	5" OD mudded elbow	back fence garage		G	Y
74	duct mastic	back fence garage	120 LF	G	N

*Condition - (G) Good (D) Damaged (SD) Significantly Damaged

Special Instructions:

Released By:	Company	Date/Time	Received By:	Company	Date/Time
T. Martin	ALS	4/23/19	Cameron Hawkins	ALS	4/23/19
Released By:	Company	Date/Time	Received By:	Company	Date/Time

APPLIED LABORATORY SERVICES

Commonwealth of Virginia Asbestos
Analytical Laboratory # 3333000153
NVLAP Lab # 200515-0

Certificate of Analysis

Analysis of Bulk Building Materials by Polarized Light Microscopy Techniques
EPA Test Method (EPA/600/R-93/116)

ALS Account:	01-163	**LIMS ID:**	ALS-2019-64017
Customer:	ALS Consulting 4101 Granby Street Norfolk, VA 23504	**Project Name:**	Civic Center
		ProjectNo:	12752
		Location:	Portsmouth Jail
P O:		**Samples Received:**	4/24/2019
TAT:	ALS Standard	**Date Analyzed:**	4/25/2019

Lab ID / Layer	Cust. ID / Homogenous	Sample Date / Description	Sample Location	Non Fibrous	Non Asbestos Fibers	Asbestos Fibers
64017-1	1	4/24/2019	3rd Fl. Elevator Landing	50% NON FIBROUS MATERIAL	50% CELLULOSE FIBER	None Detected
1	No	Beige & White Fibrous/Granular 2 x 2 Ceiling Tile				
64017-2	2	4/24/2019	3rd Fl. Elevator Landing	100% NON FIBROUS MATERIAL		None Detected
1	No	Beige & Green Pliable Paint				
64017-3	3	4/24/2019	3rd Fl. Elevator Landing	100% NON FIBROUS MATERIAL		None Detected
1	Yes	Beige Pliable Paint				
64017-4	4	4/24/2019	3rd Fl. Elevator Landing	96% NON FIBROUS MATERIAL		4% CHRYSOTILE
1	Yes	Black Granular 12 x 12 Floor Tile				
64017-4	4	4/24/2019	3rd Fl. Elevator Landing	93% NON FIBROUS MATERIAL	2% CELLULOSE FIBER	5% CHRYSOTILE
2	No	Black & Yellow Adhesive Mastic				
Sample analyzed as individual layers.						
64017-5	5	4/24/2019	3rd Fl. Elevator Landing	100% NON FIBROUS MATERIAL		None Detected
1	Yes	Black Pliable Cove Base				
64017-5	5	4/24/2019	3rd Fl. Elevator Landing	100% NON FIBROUS MATERIAL		None Detected
2	Yes	Yellow Adhesive Mastic				
Sample analyzed as individual layers.						

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Lab ID / Layer	Cust. ID / Homogenous	Sample Date / Description	Sample Location	Non Fibrous	Non Asbestos Fibers	Asbestos Fibers
64017-6	6	4/24/2019	3rd Fl. Chase	30% NON FIBROUS MATERIAL	40% CELLULOSE FIBER	None Detected
1	No	Grey & White Fibrous/Granular Jacket		20% METAL FOIL	10% FIBROUS GLASS	
64017-6	6	4/24/2019	3rd Fl. Chase	2% NON FIBROUS MATERIAL	98% FIBROUS GLASS	None Detected
2	Yes	Yellow Fibrous Insulation				
Sample analyzed as individual layers.						
64017-7	7	4/24/2019	3rd Fl. Chase	30% NON FIBROUS MATERIAL	40% CELLULOSE FIBER	None Detected
1	No	Grey & White Fibrous/Granular Jacket		20% METAL FOIL	10% FIBROUS GLASS	
64017-7	7	4/24/2019	3rd Fl. Chase	2% NON FIBROUS MATERIAL	98% FIBROUS GLASS	None Detected
2	Yes	Yellow Fibrous Insulation				
Sample analyzed as individual layers.						
64017-8	8	4/24/2019	3rd Fl. Chase	20% METAL FOIL	40% CELLULOSE FIBER	None Detected
1	No	Grey & White Fibrous/Granular Jacket		30% NON FIBROUS MATERIAL	10% FIBROUS GLASS	
64017-8	8	4/24/2019	3rd Fl. Chase	2% NON FIBROUS MATERIAL	98% FIBROUS GLASS	None Detected
2	Yes	Yellow Fibrous Insulation				
Sample analyzed as individual layers.						
64017-9	9	4/24/2019	3rd Fl. Deputy Office	1% TALC		<1% ANTHOPHYLLITE
1	Yes	White Granular Surfacing Material		99% NON FIBROUS MATERIAL		
< 1% = trace.						
64017-10	10	4/24/2019	3rd Fl. Deputy Office	100% NON FIBROUS MATERIAL		None Detected
1	Yes	Beige Granular 12 x 12 Floor Tile				
64017-10	10	4/24/2019	3rd Fl. Deputy Office	96% NON FIBROUS MATERIAL	2% CELLULOSE FIBER	2% CHRYSOTILE
2	Yes	Black & Yellow Adhesive Mastic				
Sample analyzed as individual layers.						
64017-11	11	4/24/2019	3rd Fl. Deputy Office Bathroom	96% NON FIBROUS MATERIAL		4% CHRYSOTILE
1	Yes	Beige Granular 12 x 12 Floor Tile				
64017-11	11	4/24/2019	3rd Fl. Deputy Office Bathroom	95% NON FIBROUS MATERIAL	2% CELLULOSE FIBER	3% CHRYSOTILE
2	Yes	Black Adhesive Mastic				
Sample analyzed as individual layers.						
64017-12	12	4/24/2019	3rd Fl. Back Hall at Stairs/Elevator	100% NON FIBROUS MATERIAL		None Detected
1	No	Grey Pliable Cove Base				
64017-12	12	4/24/2019	3rd Fl. Back Hall at Stairs/Elevator	100% NON FIBROUS MATERIAL		None Detected
2	Yes	Yellow Adhesive Mastic				
Sample analyzed as individual layers.						

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Lab ID	Cust. ID	Sample Date	Sample Location	Non Fibrous	Non Asbestos Fibers	Asbestos Fibers
Layer	Homogenous	Description				
64017-13	13	4/24/2019	3rd Fl. Side Chase	10% NON FIBROUS MATERIAL	90% CELLULOSE FIBER	None Detected
1	Yes	Beige Fibrous Cloth				
64017-13	13	4/24/2019	3rd Fl. Side Chase	70% NON FIBROUS MATERIAL	10% FIBROUS GLASS	20% CHRYSOTILE
2	Yes	White Fibrous Insulation				
Sample analyzed as individual layers.						
64017-14	14	4/24/2019	4th Fl. Elevator Landing	50% NON FIBROUS MATERIAL	50% CELLULOSE FIBER	None Detected
1	No	Beige & White Fibrous/Granular 2 x 2 Cceiling Tile				
64017-15	15	4/24/2019	4th Fl. Elevator Landing	100% NON FIBROUS MATERIAL		None Detected
1	Yes	White Granular Surfacing Material				
64017-16	16	4/24/2019	4th Fl. Elevator Landing	100% NON FIBROUS MATERIAL		None Detected
1	No	Beige & Pink Pliable Paint				
64017-17	17	4/24/2019	4th Fl. North Stairwell	96% NON FIBROUS MATERIAL		4% CHRYSOTILE
1	Yes	Black Granular 12 x 12 Floor Tile				
64017-17	17	4/24/2019	4th Fl. North Stairwell	93% NON FIBROUS MATERIAL	5% CELLULOSE FIBER	2% CHRYSOTILE
2	Yes	Black Adhesive Mastic				
Sample analyzed as individual layers.						
64017-18	18	4/24/2019	4th Fl. North Stairwell	100% NON FIBROUS MATERIAL		None Detected
1	No	Grey Pliable Cove Base				
64017-18	18	4/24/2019	4th Fl. North Stairwell	100% NON FIBROUS MATERIAL		None Detected
2	Yes	Yellow Adhesive Mastic				
Sample analyzed as individual layers.						
64017-19	19	4/24/2019	4th Fl. Deputy Office	100% NON FIBROUS MATERIAL		None Detected
1	Yes	Beige Granular 12 x 12 Floor Tile				
64017-19	19	4/24/2019	4th Fl. Deputy Office	93% NON FIBROUS MATERIAL	5% CELLULOSE FIBER	2% CHRYSOTILE
2	No	Black & Yellow Adhesive Mastic				
Sample analyzed as individual layers.						
64017-20	20	4/24/2019	4th Fl. Deputy Office	96% NON FIBROUS MATERIAL		4% CHRYSOTILE
1	Yes	Beige Granular 12 x 12 Floor Tile				
64017-20	20	4/24/2019	4th Fl. Deputy Office	95% NON FIBROUS MATERIAL	2% CELLULOSE FIBER	3% CHRYSOTILE
2	Yes	Black Adhesive Mastic				
Sample analyzed as individual layers.						

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Lab ID / Layer	Cust. ID / Homogenous	Sample Date / Description	Sample Location	Non Fibrous	Non Asbestos Fibers	Asbestos Fibers
64017-21	21	4/24/2019	4th Fl. Side Chase	80% NON FIBROUS MATERIAL	10% FIBROUS GLASS	10% CHRYSOTILE
1	Yes	White Fibrous Insulation				
64017-22	22	4/24/2019	5th Fl. Elevator Landing	50% NON FIBROUS MATERIAL	50% CELLULOSE FIBER	None Detected
1	No	Beige & White Fibrous/Granular 2 x 2 Ceiling Tile				
64017-23	23	4/24/2019	5th Fl. Elevator Landing	10% NON FIBROUS MATERIAL	90% CELLULOSE FIBER	None Detected
1	Yes	Beige Fibrous Cloth				
64017-23	23	4/24/2019	5th Fl. Elevator Landing	80% NON FIBROUS MATERIAL	10% FIBROUS GLASS	10% CHRYSOTILE
2	Yes	White Fibrous Insulation				
Sample analyzed as individual layers.						
64017-24	24	4/24/2019	5th Fl. Elevator Landing	1% TALC 99% NON FIBROUS MATERIAL		None Detected
1	No	White Granular Surfacing Material				
64017-25	25	4/24/2019	5th Fl. Elevator Landing	96% NON FIBROUS MATERIAL		4% CHRYSOTILE
1	Yes	Black Granular 12 x 12 Floor Tile				
64017-26	26	4/24/2019	5th Fl. Elevator Landing	100% NON FIBROUS MATERIAL		None Detected
1	Yes	Black Pliable Cove Base				
64017-26	26	4/24/2019	5th Fl. Elevator Landing	100% NON FIBROUS MATERIAL		None Detected
2	Yes	Beige Adhesive Mastic				
Sample analyzed as individual layers.						
64017-27	27	4/24/2019	5th Fl. Deputy Office	100% NON FIBROUS MATERIAL		None Detected
1	Yes	White Granular 12 x 12 Floor Tile				
64017-28	28	4/24/2019	5th Fl. Deputy Bathroom	97% NON FIBROUS MATERIAL		3% CHRYSOTILE
1	Yes	Beige Granular 12 x 12 Floor Tile				
64017-28	28	4/24/2019	5th Fl. Deputy Bathroom	95% NON FIBROUS MATERIAL	2% CELLULOSE FIBER	3% CHRYSOTILE
2	Yes	Black Adhesive Mastic				
Sample analyzed as individual layers.						
64017-29	29	4/24/2019	5th Fl. Side Chase	10% NON FIBROUS MATERIAL	90% CELLULOSE FIBER	None Detected
1	Yes	Beige Fibrous Cloth				

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Lab ID / Layer	Cust. ID / Homogenous	Sample Date / Description	Sample Location	Non Fibrous	Non Asbestos Fibers	Asbestos Fibers
64017-29	29	4/24/2019	5th Fl. Side Chase	80% NON FIBROUS MATERIAL	10% FIBROUS GLASS	10% CHRYSOTILE
2	Yes	White Fibrous Insulation				
Sample analyzed as individual layers.						
64017-30	30	4/24/2019	5th Fl. Rear Elevator Landing	100% NON FIBROUS MATERIAL		None Detected
1	Yes	Black Pliable Cove Base				
64017-30	30	4/24/2019	5th Fl. Rear Elevator Landing	100% NON FIBROUS MATERIAL		None Detected
2	Yes	Brown Adhesive Mastc				
Sample analyzed as individual layers.						
64017-31	31	4/24/2019	6th Fl. Elevator Landing	10% NON FIBROUS MATERIAL	90% CELLULOSE FIBER	None Detected
1	Yes	Beige Fibrous Cloth				
64017-31	31	4/24/2019	6th Fl. Elevator Landing	80% NON FIBROUS MATERIAL	10% FIBROUS GLASS	10% CHRYSOTILE
2	Yes	Beige Fibrous Insulation				
Sample analyzed as individual layers.						
64017-32	32	4/24/2019	6th Fl. Elevator Landing	30% NON FIBROUS MATERIAL	30% FIBROUS GLASS 40% CELLULOSE FIBER	None Detected
1	No	Beige & White Fibrous/Granular 2 x 2 Ceiling Tile				
64017-33	33	4/24/2019	6th Fl. Deputy Office	100% NON FIBROUS MATERIAL		None Detected
1	Yes	Grey Granular 12 x 12 Floor Tile				
64017-33	33	4/24/2019	6th Fl. Deputy Office	98% NON FIBROUS MATERIAL	2% CELLULOSE FIBER	None Detected
2	Yes	Yellow Adhesive Mastic				
Sample analyzed as individual layers.						
64017-34	34	4/24/2019	6th Fl. Deputy Office Bathroom	97% NON FIBROUS MATERIAL		3% CHRYSOTILE
1	Yes	Beige Granular 12 x 12 Floor Tile				
64017-34	34	4/24/2019	6th Fl. Deputy Office Bathroom	93% NON FIBROUS MATERIAL	2% CELLULOSE FIBER	5% CHRYSOTILE
2	Yes	Black Adhesive Mastic				
Sample analyzed as individual layers.						
64017-35	35	4/24/2019	6th Fl. Chase	20% NON FIBROUS MATERIAL 30% METAL FOIL	40% CELLULOSE FIBER 10% FIBROUS GLASS	None Detected
1	No	Grey & White Fibrous/Granular Jacket				
64017-35	35	4/24/2019	6th Fl. Chase	2% NON FIBROUS MATERIAL	98% FIBROUS GLASS	None Detected
2	Yes	Yellow Fibrous Insulation				
Sample analyzed as individual layers.						

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Lab ID / Layer	Cust. ID / Homogenous	Sample Date / Description	Sample Location	Non Fibrous	Non Asbestos Fibers	Asbestos Fibers
64017-36	36	4/24/2019	6th Fl. Chase	30% METAL FOIL 20% NON FIBROUS MATERIAL	40% CELLULOSE FIBER 10% FIBROUS GLASS	None Detected
1	No	Grey & White Fibrous/Granular Jacket				
64017-36	36	4/24/2019	6th Fl. Chase	2% NON FIBROUS MATERIAL	98% FIBROUS GLASS	None Detected
2	Yes	Yellow Fibrous Insulation				
Sample analyzed as individual layers.						
64017-37	37	4/24/2019	6th Fl. Side Chase	30% NON FIBROUS MATERIAL 20% METAL FOIL	40% CELLULOSE FIBER 10% FIBROUS GLASS	None Detected
1	No	Beige & Grey Fibrous/Granular Jacket				
64017-37	37	4/24/2019	6th Fl. Side Chase	2% NON FIBROUS MATERIAL	98% FIBROUS GLASS	None Detected
2	Yes	Yellow Fibrous Insulation				
Sample analyzed as individual layers.						
64017-38	38	4/24/2019	6th Fl. Rear Elevator Landing	96% NON FIBROUS MATERIAL		4% CHRYSOTILE
1	Yes	Black Granular 12 x 12 Floor Tile				
64017-38	38	4/24/2019	6th Fl. Rear Elevator Landing	95% NON FIBROUS MATERIAL	2% CELLULOSE FIBER	3% CHRYSOTILE
2	Yes	Black Adhesive Mastic				
Sample analyzed as individual layers.						
64017-39	39	4/24/2019	6th Fl. Rear Elevator Landing	1% TALC 99% NON FIBROUS MATERIAL		<1% CHRYSOTILE
1	No	White Granular Surfacing Material				
< 1% = trace.						
64017-40	40	4/24/2019	7th Fl. Deputy Office	100% NON FIBROUS MATERIAL		None Detected
1	Yes	Grey Granular 12 x 12 Floor Tile				
64017-40	40	4/24/2019	7th Fl. Deputy Office	95% NON FIBROUS MATERIAL	2% CELLULOSE FIBER	3% CHRYSOTILE
2	Yes	Black Adhesive Mastic				
Sample analyzed as individual layers.						
64017-41	41	4/24/2019	7th Fl. Deputy Office Bathroom	100% NON FIBROUS MATERIAL		None Detected
1	Yes	Grey Granular 12 x 12 Floor Tile				
64017-41	41	4/24/2019	7th Fl. Deputy Office Bathroom	98% NON FIBROUS MATERIAL		2% CHRYSOTILE
2	No	Black & Yellow Adhesive Mastic				
Sample analyzed as individual layers.						
64017-42	42	4/24/2019	7th Fl. Deputy Office	100% NON FIBROUS MATERIAL		None Detected
1	Yes	Beige Pliable Paint				
64017-43	43	4/24/2019	7th Fl. Elevator Landing	50% NON FIBROUS MATERIAL	50% CELLULOSE FIBER	None Detected
1	No	Beige & White Fibrous/Granular 2 x 2 Ceiling Tile				

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Lab ID / Layer	Cust. ID / Homogenous	Sample Date / Description	Sample Location	Non Fibrous	Non Asbestos Fibers	Asbestos Fibers
64017-44	44	4/24/2019	7th Fl. Elevator Landing	75% NON FIBROUS MATERIAL	10% FIBROUS GLASS 5% CELLULOSE FIBER	10% CHRYSOTILE
1	Yes	White Fibrous Insulation				
64017-45	45	4/24/2019	7th Fl. Side Chase	10% NON FIBROUS MATERIAL	90% CELLULOSE FIBER	None Detected
1	Yes	Beige Fibrous Cloth				
64017-45	45	4/24/2019	7th Fl. Side Chase	75% NON FIBROUS MATERIAL	10% FIBROUS GLASS 5% CELLULOSE FIBER	10% CHRYSOTILE
2	Yes	White Fibrous Insulation				
Sample analyzed as individual layers.						
64017-46	46	4/24/2019	7th Fl. Rear Stairwell	1% TALC 99% NON FIBROUS MATERIAL		None Detected
1	No	White Granular Surfacing Material				
64017-47	47	4/24/2019	7th Fl. Rear Stairwell	50% NON FIBROUS MATERIAL	50% FIBROUS GLASS	None Detected
1	No	White Fibrous/Granular 2 x 2 Ceiling Tile				
64017-48	48	4/24/2019	8th Fl. Rear Stairwell	50% NON FIBROUS MATERIAL	50% FIBROUS GLASS	None Detected
1	No	White Fibrous/Granular 2 x 2 Ceiling Tile				
64017-49	49	4/24/2019	7th Fl. Rear Elevator Landing	96% NON FIBROUS MATERIAL		4% CHRYSOTILE
1	Yes	Black Granular 12 x 12 Floor Tile				
64017-49	49	4/24/2019	7th Fl. Rear Elevator Landing	95% NON FIBROUS MATERIAL		5% CHRYSOTILE
2	Yes	Black Adhesive Mastic				
Sample analyzed as individual layers.						
64017-50	50	4/24/2019	Rear Planter Walls	85% NON FIBROUS MATERIAL	15% SYNTHETIC FIBER	None Detected
1	Yes	Black Fibrous/Pliable Rubbery Material				
64017-51	51	4/24/2019	Rear Planter Walls (Exterior)	100% NON FIBROUS MATERIAL		None Detected
1	Yes	White Pliable Expansion Joint				
64017-52	52	4/24/2019	Rear Planter Floor	90% NON FIBROUS MATERIAL	5% FIBROUS GLASS 5% CELLULOSE FIBER	None Detected
1	Yes	Black Fibrous/Adhesive Tar				
64017-53	53	4/24/2019	Rear Door Exterior	100% NON FIBROUS MATERIAL		None Detected
1	Yes	White Pliable Caulking				

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Lab ID / Layer	Cust. ID / Homogenous	Sample Date / Description	Sample Location	Non Fibrous	Non Asbestos Fibers	Asbestos Fibers
64017-54	54	4/24/2019	D Side on Jail Bldg . Exterior	100% NON FIBROUS MATERIAL		None Detected
1	Yes	White Pliable Expansion Joint				
64017-55	55	4/24/2019	Flagpoles on Ground	100% NON FIBROUS MATERIAL		None Detected
1	Yes	White Pliable Expansion Joint				
64017-56	56	4/24/2019	Front Planter Walls	100% NON FIBROUS MATERIAL		None Detected
1	Yes	Black Pliable Rubbery Material				
64017-57	57	4/24/2019	Front Planter Floor	85% NON FIBROUS MATERIAL	5% FIBROUS GLASS 10% CELLULOSE FIBER	None Detected
1	Yes	Black Adhesive Tar				
64017-57	57	4/24/2019	Front Planter Floor	75% NON FIBROUS MATERIAL	25% FIBROUS GLASS	None Detected
2	Yes	Black Fibrous/Adhesive Tar Paper-like Material				
Sample analyzed as individual layers.						
64017-58	58	4/24/2019	Front Planter Wall	100% NON FIBROUS MATERIAL		None Detected
1	Yes	Black Pliable Rubbery Material				
64017-59	59	4/24/2019	Front Planter Floor	85% NON FIBROUS MATERIAL	5% FIBROUS GLASS 10% CELLULOSE FIBER	None Detected
1	Yes	Black Fibrous/Adhesive Tar				
64017-59	59	4/24/2019	Front Planter Floor	75% NON FIBROUS MATERIAL	25% FIBROUS GLASS	None Detected
2	Yes	Black Fibrous/Adhesive Tar Paper-like Material				
Sample analyzed as individual layers.						
64017-60	60	4/24/2019	A Side J & D Bldg Exterior	98% NON FIBROUS MATERIAL		2% CHRYSOTILE
1	Yes	Beige Granular Glazing				
64017-61	61	4/24/2019	A Side Exterior J & D Bldg	100% NON FIBROUS MATERIAL		None Detected
1	Yes	White Pliable Caulking				
64017-62	62	4/24/2019	A Side Exterior J & D Bldg	100% NON FIBROUS MATERIAL		None Detected
1	Yes	White Pliable Caulking				
64017-63	63	4/24/2019	A Side Exterior J & D Bldg	100% NON FIBROUS MATERIAL		None Detected
1	Yes	White Pliable Caulking				

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Lab ID	Cust. ID	Sample Date	Sample Location			
Layer	Homogenous	Description		Non Fibrous	Non Asbestos Fibers	Asbestos Fibers

Analyst: Kim Mantey

NIST Signatory: K. Mantey, Senior Microscopist

Date Released: 4/26/2019

This Certificate of Analysis presents analytical data covered by this laboratory's accreditation under the National Voluntary Laboratory Accreditation Program (NVLAP). Detection, identification, and quantification of asbestos in certain building materials (e.g., floor tiles, caulk, asphalts, roofing materials) by PLM is difficult due to interfering matrix components. PLM technique has an estimated detection limit of 1% (v:v). Fibers smaller than 0.25 um cannot be detected; hence, correlative techniques should be considered for data verification. Non-detection of asbestos in certain materials should be verified by analytical electron microscopy techniques (refer to AHERA criteria). Quantifications are estimated by calibrated visual estimate, unless otherwise noted. The estimated measurement of uncertainty in PLM analysis is available upon request. The data reported herein relates only to those samples analyzed. Any information supplied by the Customer can affect the validity of results. Results apply to the sample as received. This report shall not be reproduced, except in full, without the written permission of senior managers of this laboratory. This report shall not be used to claim product endorsement by NVLAP or any agency of the U.S. Government.

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ASBESTOS FIELD INSPECTION FORM/CHAIN OF CUSTODY

ALS Project #: 12752 Project Name: Civic Center Project Location: Portsmouth Jail

Date Sampled: 4/24/19 Results Due: Standard Inspector(s): T. Martin / T. Baker ALS Lims #: 64017

Sample #	Sample Description	Sample Location	Quantity	*Condition G/D/SD	Friable Y/N
1	12"x12" small pinhole & fissure CT	3rd fl. elevator landing		G	Y
2	cmu block sealant	3rd fl. elevator landing		G	N
3	door caulk	3rd fl. elevator landing		G	N
4	12"x12" black flr w/ adhesive	3rd fl. elevator landing		G	N
5	black covebase w/ adhesive	3rd fl. elevator landing		G	N
6	8" OD pipe insulation	3rd fl. chase		D	Y
7	8" OD pipe insulation	3rd fl. chase		D	Y
8	2" OD pipe insulation	3rd fl. chase		G	Y
9	cmu block sealant	3rd fl. deputy office		G	N
10	12"x12" gray w/ white spec floor tile w/ adhesive	3rd fl. deputy office		G	N

*Condition - (G) Good (D) Damaged (SD) Significantly Damaged

Special Instructions:

Released By:	Company	Date/Time	Received By:	Company	Date/Time
T. Martin	ALS	4/24/19	Cameron Hawkins	ALS	4/24/19

ASBESTOS FIELD INSPECTION FORM/CHAIN OF CUSTODY

ALS Project #: 12752 Project Name: Civic Center Project Location: Portsmouth Jail

Date Sampled: 4/24/19 Results Due: Standard Inspector(s): T. Martin / T. Baker ALS Lims #: 64017

Sample #	Sample Description	Sample Location	Quantity	*Condition G/D/SD	Friable Y/N
11	12" x 12" white w/ gray spec ft w/ adhesive	3rd fl. deputy office bathroom		G	N
12	~~gray~~ black covebase w/ adhesive	3rd fl. back hall @ stairs/elevator		G	N
13	2" OD mudded elbow	3rd fl. side chase		D	Y
14	2'x2' small pinhole & fissure CT	4th fl. elevator landing		G	Y
15	cmu black sealant	4th fl. elevator landing		G	N
16	door caulk	4th fl. elevator landing		G	N
17	12" x 12" black floortile w/adhesive	4th fl. north stairwell		G	N
18	black covebase w/ adhesive	4th fl. north stairwell		G	N
19	12"x12 gray w/ white spec ft w/ ~~adhesive~~ mastic	4th fl. deputy office		G	N
20	12" x 12" white w/ gray spec ft/n	4th fl. deputy office		G	N

*Condition - (G) Good (D) Damaged bathroom (SD) Significantly Damaged

Special Instructions:

Released By:	Company	Date/Time	Received By:	Company	Date/Time
T. Martin	ALS	4/24/19	Cameron Hawkins	ALS	4/24/19
Released By:	Company	Date/Time	Received By:	Company	Date/Time

ASBESTOS FIELD INSPECTION FORM/CHAIN OF CUSTODY

ALS Project #: 12752 Project Name: Civic Center Project Location: Portsmouth Jail

Date Sampled: 4/24/19 Results Due: Standard Inspector(s): T. Martin / T. Baker ALS Lims #: 64017

Sample #	Sample Description	Sample Location	Quantity	*Condition G/D/SD	Friable Y/N
21	2" OD mudded elbow	4th fl. side chase		D	Y
22	2'x2' small pinhole & fissure CT	5th fl. elevator landing		G	Y
23	3" OD mudded elbow	5th fl. elevator landing		D	Y
24	conn black sealant	5th fl. elevator landing		G	N
25	12"x12" black floortile w/adhesive	5th fl. elevator landing		G	N
26	black cavebase w/adhesive	5th fl. elevator landing		G	N
27	12"x12" gray w/white spec floortile w/adhesive	5th fl. deputy office		G	N
28	12"x12" white w/gray spec ftln	5th fl. deputy bathroom		G	N
29	2" OD mudded elbow	5th fl. side chase		D	Y
30	black cavebase w/adhesive	5th fl. rear elevator landing		G	N

*Condition - (G) Good (D) Damaged (SD) Significantly Damaged

Special Instructions:

Released By:	Company	Date/Time	Received By:	Company	Date/Time
T. Martin	ALS	4/24/19	Cameron Hawkins	ALS	4/24/19
Released By:	Company	Date/Time	Received By:	Company	Date/Time

ASBESTOS FIELD INSPECTION FORM/CHAIN OF CUSTODY

ALS Project #: 12752 Project Name: Civic Center Project Location: Portsmouth Jail

Date Sampled: 4/24/19 Results Due: Standard Inspector(s): T. Martin / T. Baker ALS Lims #: 64017

Sample #	Sample Description	Sample Location	Quantity	*Condition G/D/SD	Friable Y/N
31	3" OD mudded elbow	6th fl. elevator landing		D	Y
32	2'x2' small pinhole & fissure CT	6th fl. elevator landing		G	Y
33	12"x12" gray w/ white spec ft w/ adhesive	6th fl. deputy office		G	N
34	12"x12" white w/ gray spec ft/m	6th fl. deputy office bathroom		G	N
35	2" OD pipe insulation	6th fl. chase		D	Y
36	8" OD pipe insulation	6th fl. chase		D	Y
37	2" OD pipe insulation	6th fl. side chase		D	Y
38	12"x12" black ft/m	6th fl. rear elevator landing		G	N
39	Conn black sealant	6th fl. rear elevator landing		G	N
40	12"x12" gray w/ white spec ft/m	7th fl. deputy office		G	N

*Condition - (G) Good (D) Damaged (SD) Significantly Damaged

Special Instructions:

Released By:	Company	Date/Time	Received By:	Company	Date/Time
T. Martin	ALS	4/24/19	Cameron Hawkins	ALS	4/24/19

ASBESTOS FIELD INSPECTION FORM/CHAIN OF CUSTODY

ALS Project #: 12752 Project Name: Civic Center Project Location: Portsmouth Jail

Date Sampled: 4/24/19 Results Due: Standard Inspector(s): T. Baker / T. Martin ALS Lims #: 64017

Sample #	Sample Description	Sample Location	Quantity	*Condition G/D/SD	Friable Y/N
41	12" x 12" blue flr	7th fl. deputy office bathroom		G	N
42	door caulk	7th fl. deputy office		G	N
43	2'x2' small pinhole & fissure CT	7th fl. elevator landing		G	Y
44	3" OD mudded elbow	7th fl. elevator landing		G	Y
45	2" OD mudded elbow	7th fl. side chase		G	Y
46	cmu black sealant	7th fl. rear stairwell		G	N
47	2'x2' fissure CT	7th fl. rear stairwell		G	Y
48	2'x2' fissure CT	8th fl. rear stairwell		G	Y
49	12" x 12" black flr	7th fl. rear elevator landing		G	N
50	tar paper	rear planter walls	6,400 SF	SD	N

*Condition - (G) Good (D) Damaged (SD) Significantly Damaged

Special Instructions:

Released By:	Company	Date/Time	Received By:	Company	Date/Time
T. Martin	ALS	4/24/19	Cameron Hawkins	ALS	4/24/19

ASBESTOS FIELD INSPECTION FORM/CHAIN OF CUSTODY

ALS Project #: 12752 Project Name: Civic Center Project Location: Portsmouth Jail

Date Sampled: 4/24/19 Results Due: Standard Inspector(s): T. Martin / T. Baker ALS Lims #: 64017

Sample #	Sample Description	Sample Location	Quantity	*Condition G/D/SD	Friable Y/N
S1	expansion joint	rear planter walls (exterior)	49,000 LF	G	N
S2	tar paper	rear planter floor	4,300 SF	G	N
S3	exterior door caulk	rear door exterior	25 LF	G	N
S4	expansion joint	D side on jail bldg. exterior	R-51	G	N
S5	expansion joint	flagpoles on ground	R-51	G	N
S6	tar paper	front planter walls	R-50	SD	N
S7	tar paper	front planter floor	R-52	G	N
S8	tar paper	front planter wall	R-50	G	N
S9	tar paper	front planter floor	R-52	G	N
60	window glaze	A side J+D Bldg. exterior	850 LF	G	Y

*Condition - (G) Good (D) Damaged (SD) Significantly Damaged

Special Instructions:

Released By:	Company	Date/Time	Received By:	Company	Date/Time
T. Martin	ALS	4/24/19	Cameron Hawkins	ALS	4/24/19

ASBESTOS FIELD INSPECTION FORM/CHAIN OF CUSTODY

ALS Project #: 12752 Project Name: Civic Center Project Location: Portsmouth Jail

Date Sampled: 4/24/19 Results Due: Standard Inspector(s): T. Martin / T. Baker ALS Lims #: C64017

Sample #	Sample Description	Sample Location	Quantity	*Condition G/D/SD	Friable Y/N
61	window frame caulk after	A side exterior J+D Bldg.	650 LF	G	N
62	window frame caulk	A side exterior J+D Bldg.	650 LF	G	N
63	door frame caulk	A side exterior J+D Bldg	250 LF	G	N

*Condition - (G) Good (D) Damaged (SD) Significantly Damaged

Special Instructions:

Released By:	Company	Date/Time	Received By:	Company	Date/Time
T. Martin	ALS	4/24/19	Cameron Hawkins	ALS	4/24/19
Released By:	Company	Date/Time	Received By:	Company	Date/Time

APPLIED LABORATORY SERVICES

Commonwealth of Virginia Asbestos Analytical Laboratory # 3333000153
NVLAP Lab # 200515-0

Certificate of Analysis

Analysis of Bulk Building Materials by Polarized Light Microscopy Techniques
EPA Test Method (EPA/600/R-93/116)

ALS Account: 01-163
Customer: ALS Consulting
4101 Granby Street
Norfolk, VA 23504
P O:
TAT: ALS Standard

LIMS ID: ALS-2019-64039
Project Name: Civic Center
ProjectNo: 12752
Location: Portsmouth Jail
Samples Received: 4/26/2019
Date Analyzed: 4/30/2019

Lab ID / Layer	Cust. ID / Homogenous	Sample Date / Description	Sample Location	Non Fibrous	Non Asbestos Fibers	Asbestos Fibers
64039-1	64	4/25/2019	Police Office	100% NON FIBROUS MATERIAL		None Detected
1	Yes	Green Granular 12 x 12 Floor Tile				
64039-1	64	4/25/2019	Police Office	98% NON FIBROUS MATERIAL	2% CELLULOSE FIBER	None Detected
2	Yes	Black Adhesive Mastic				
Sample analyzed as individual layers.						
64039-2	65	4/25/2019	Police Office At Bathrooms	100% NON FIBROUS MATERIAL		None Detected
1	Yes	Brown Pliable Cove Base				
64039-2	65	4/25/2019	Police Office At Bathrooms	100% NON FIBROUS MATERIAL		None Detected
2	Yes	Yellow Adhesive Mastic				
Sample analyzed as individual layers.						
64039-2	65	4/25/2019	Police Office At Bathrooms	100% NON FIBROUS MATERIAL		None Detected
3	Yes	White Granular Surfacing Material				
Sample analyzed as individual layers.						
64039-3	66	4/25/2019	Police Office Men's Bathroom	100% NON FIBROUS MATERIAL		None Detected
1	Yes	Blue Granular 12 x 12 Floor Tile				
64039-3	66	4/25/2019	Police Office Men's Bathroom	95% NON FIBROUS MATERIAL	3% CELLULOSE FIBER	2% CHRYSOTILE
2	No	Black & Yellow Adhesive Mastic				
Sample analyzed as individual layers.						
64039-4	67	4/25/2019	Police Office	100% NON FIBROUS MATERIAL		None Detected
1	Yes	Brown Pliable Cove Base				

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Lab ID / Layer	Cust. ID / Homogenous	Sample Date / Description	Sample Location	Non Fibrous	Non Asbestos Fibers	Asbestos Fibers
64039-4	67	4/25/2019	Police Office	100% NON FIBROUS MATERIAL		None Detected
2	Yes	Yellow Adhesive Mastic				
Sample analyzed as individual layers.						
64039-5	68	4/25/2019	Police Office Men's Bathroom	88% NON FIBROUS MATERIAL	12% CELLULOSE FIBER	None Detected
1	No	Beige & White Fibrous/Granular Drywall				
64039-6	69	4/25/2019	Police Office Hall At Security Door	100% NON FIBROUS MATERIAL		None Detected
1	Yes	Black Pliable Caulking				
64039-7	70	4/25/2019	Police Office	30% NON FIBROUS MATERIAL	30% FIBROUS GLASS 40% CELLULOSE FIBER	None Detected
1	No	Beige & White Fibrous/Granular 2 x 2 Ceiling Tile				
64039-8	71	4/25/2019	Police Office At Bathrooms	100% NON FIBROUS MATERIAL		None Detected
1	Yes	Brown Pliable Cove Base				
64039-8	71	4/25/2019	Police Office At Bathrooms	100% NON FIBROUS MATERIAL		None Detected
2	Yes	Yellow Adhesive Mastic				
Sample analyzed as individual layers.						
64039-8	71	4/25/2019	Police Office At Bathrooms	100% NON FIBROUS MATERIAL		None Detected
3	Yes	White Granular Surfacing Material				
Sample analyzed as individual layers.						
64039-9	72	4/25/2019	Chief Office	100% NON FIBROUS MATERIAL		None Detected
1	Yes	Grey Pliable Cove Base				
64039-9	72	4/25/2019	Chief Office	100% NON FIBROUS MATERIAL		None Detected
2	Yes	Yellow Adhesive Mastic				
Sample analyzed as individual layers.						
64039-9	72	4/25/2019	Chief Office	97% NON FIBROUS MATERIAL	3% CELLULOSE FIBER	None Detected
3	Yes	White Fibrous/Granular Surfacing Material				
Sample analyzed as individual layers.						
64039-10	73	4/25/2019	Police Office	100% NON FIBROUS MATERIAL		None Detected
1	Yes	White Granular Surfacing Material				
64039-10	73	4/25/2019	Police Office	100% NON FIBROUS MATERIAL		None Detected
2	Yes	White Pliable Caulking				
Sample analyzed as individual layers.						

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Lab ID / Layer	Cust. ID / Homogenous	Sample Date / Description	Sample Location	Non Fibrous	Non Asbestos Fibers	Asbestos Fibers
64039-11	74	4/25/2019	Visiting Room Hall	100% NON FIBROUS MATERIAL		None Detected
1	Yes	White Granular 12 x 12 Floor Tile				
64039-11	74	4/25/2019	Visiting Room Hall	100% NON FIBROUS MATERIAL		None Detected
2	Yes	Yellow Adhesive Mastic				
Sample analyzed as individual layers.						
64039-12	75	4/25/2019	Hall At Visitation	100% NON FIBROUS MATERIAL		None Detected
1	Yes	Grey Pliable Cove Base				
64039-12	75	4/25/2019	Hall At Visitation	100% NON FIBROUS MATERIAL		None Detected
2	Yes	Yellow Adhesive Mastic				
Sample analyzed as individual layers.						
64039-12	75	4/25/2019	Hall At Visitation	100% NON FIBROUS MATERIAL		None Detected
3	Yes	White Granular Surfacing Material				
Sample analyzed as individual layers.						
64039-13	76	4/25/2019	2nd Fl. Medical Foyer	100% NON FIBROUS MATERIAL		None Detected
1	Yes	Beige Granular 12 x 12 Floor Tile				
64039-13	76	4/25/2019	2nd Fl. Medical Foyer	94% NON FIBROUS MATERIAL	2% CELLULOSE FIBER 2% SYNTHETIC FIBER	2% CHRYSOTILE
2	Yes	Yellow & Black Adhesive Mastic				
Sample analyzed as individual layers.						
64039-14	77	4/25/2019	2nd Fl. Medical Office	70% NON FIBROUS MATERIAL	15% FIBROUS GLASS	15% CHRYSOTILE
1	Yes	White Fibrous/Granular Insulation				
64039-15	78	4/25/2019	Exterior At Penthouses	100% NON FIBROUS MATERIAL		None Detected
1	Yes	White Pliable Caulking				
64039-16	79	4/25/2019	Jail Roof	100% NON FIBROUS MATERIAL		None Detected
1	Yes	White Granular/Cementitious Material				
64039-16	79	4/25/2019	Jail Roof	100% NON FIBROUS MATERIAL		None Detected
2	Yes	White Pliable Caulking				
Sample analyzed as individual layers.						
64039-17	80	4/25/2019	Jail Roof	100% NON FIBROUS MATERIAL		None Detected
1	Yes	White Granular/Cementitious Material				
64039-18	81	4/25/2019	Jail Roof	98% NON FIBROUS MATERIAL		2% CHRYSOTILE
1	No	Black & Clear Adhesive Mastic W/ Aggregate				
64039-19	82	4/25/2019	Penthouse Roof	100% NON FIBROUS MATERIAL		None Detected
1	Yes	White Granular/Cementitious Material				

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Lab ID / Layer	Cust. ID / Homogenous	Sample Date / Description	Sample Location	Non Fibrous	Non Asbestos Fibers	Asbestos Fibers
64039-20	83	4/25/2019	Penthouse Roof	90% NON FIBROUS MATERIAL	10% SYNTHETIC FIBER	None Detected
1	No	Black Fibrous/Adhesive Tar				
64039-21	84	4/25/2019	Corrections Office Layer 1	100% NON FIBROUS MATERIAL		None Detected
1	Yes	Beige Granular 12 x 12 Floor Tile				
64039-22	85	4/25/2019	Corrections Office Layer 2	100% NON FIBROUS MATERIAL		None Detected
1	Yes	Grey Granular 12 x 12 Floor Tile				
64039-22	85	4/25/2019	Corrections Office Layer 2	97% NON FIBROUS MATERIAL	2% CELLULOSE FIBER 1% SYNTHETIC FIBER	None Detected
2	Yes	Yellow Adhesive Mastic				
Sample analyzed as individual layers.						
64039-23	86	4/25/2019	Corrections Office Layer 3	100% NON FIBROUS MATERIAL		None Detected
1	Yes	Beige Granular 12 x 12 Floor Tile				
64039-23	86	4/25/2019	Corrections Office Layer 3	100% NON FIBROUS MATERIAL		None Detected
2	Yes	Yellow Adhesive Mastic				
Sample analyzed as individual layers.						
64039-24	87	4/25/2019	Back Office Layer 1	100% NON FIBROUS MATERIAL		None Detected
1	Yes	Grey Granular 12 x 12 Floor Tile				
64039-24	87	4/25/2019	Back Office Layer 1	97% NON FIBROUS MATERIAL	2% CELLULOSE FIBER 1% SYNTHETIC FIBER	None Detected
2	Yes	Yellow Adhesive Mastic				
Sample analyzed as individual layers.						
64039-25	88	4/25/2019	Back Office Layer 2	100% NON FIBROUS MATERIAL		None Detected
1	Yes	White Granular 12 x 12 Floor Tile				
64039-25	88	4/25/2019	Back Office Layer 2	100% NON FIBROUS MATERIAL		None Detected
2	Yes	Yellow Adhesive Mastic				
Sample analyzed as individual layers.						
64039-26	89	4/25/2019	Back Office Layer 3	100% NON FIBROUS MATERIAL		None Detected
1	Yes	Yellow Adhesive Mastic				
64039-26	89	4/25/2019	Back Office Layer 3	100% NON FIBROUS MATERIAL		None Detected
2	Yes	Beige Granular 12 x 12 Floor Tile				
Sample analyzed as individual layers.						
64039-26	89	4/25/2019	Back Office Layer 3	98% NON FIBROUS MATERIAL	2% CELLULOSE FIBER	None Detected
3	No	Grey & Yellow Granular/Adhesive Mastic & Flooring Material				
Sample analyzed as individual layers.						

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Lab ID / Layer	Cust. ID / Homogenous	Sample Date / Description	Sample Location	Non Fibrous	Non Asbestos Fibers	Asbestos Fibers
64039-27	90	4/25/2019	Police Garage	3% WOLLASTONITE	5% CELLULOSE FIBER	<1% TREMOLITE
1	Yes	White Pliable Mastic		92% NON FIBROUS MATERIAL		
<1% = trace, recommend TEM for confirmation.						
64039-27	90	4/25/2019	Police Garage	5% NON FIBROUS MATERIAL	95% CELLULOSE FIBER	None Detected
2	Yes	White Fibrous Cloth				
Sample analyzed as individual layers.						
64039-27	90	4/25/2019	Police Garage	30% METAL FOIL	30% CELLULOSE FIBER	None Detected
3	No	Beige & Grey Fibrous/Pliable Jacket		30% NON FIBROUS MATERIAL	10% FIBROUS GLASS	
Sample analyzed as individual layers.						
64039-27	90	4/25/2019	Police Garage	2% NON FIBROUS MATERIAL	98% FIBROUS GLASS	None Detected
4	Yes	Yellow Fibrous Insulation				
Sample analyzed as individual layers.						
64039-28	91	4/25/2019	Police Garage	15% NON FIBROUS MATERIAL	85% FIBROUS GLASS	None Detected
1	Yes	White Fibrous Fireproofing				
64039-29	92	4/25/2019	Police Garage	3% WOLLASTONITE	5% CELLULOSE FIBER	<1% TREMOLITE
1	Yes	White Pliable Mastic		92% NON FIBROUS MATERIAL		
<1% = trace, recommend TEM for confirmation.						
64039-29	92	4/25/2019	Police Garage	5% NON FIBROUS MATERIAL	95% CELLULOSE FIBER	None Detected
2	Yes	Beige Fibrous Cloth				
Sample analyzed as individual layers.						
64039-29	92	4/25/2019	Police Garage	100% NON FIBROUS MATERIAL		None Detected
3	Yes	Black Foam				
Sample analyzed as individual layers.						
64039-29	92	4/25/2019	Police Garage	3% NON FIBROUS MATERIAL	97% CELLULOSE FIBER	None Detected
4	Yes	Brown Fibrous Paper				
Sample analyzed as individual layers.						
64039-30	93	4/25/2019	Police Garage	5% NON FIBROUS MATERIAL	95% CELLULOSE FIBER	None Detected
1	Yes	Beige Fibrous Cloth				
64039-30	93	4/25/2019	Police Garage	85% NON FIBROUS MATERIAL		15% CHRYSOTILE
2	Yes	White Fibrous/Granular Insulation				
Sample analyzed as individual layers.						
64039-31	94	4/25/2019	Police Garage	2% WOLLASTONITE	5% CELLULOSE FIBER	<1% TREMOLITE
1	Yes	White Pliable Mastic		93% NON FIBROUS MATERIAL		
<1% = trace, recommend TEM for confirmation.						
64039-31	94	4/25/2019	Police Garage	5% NON FIBROUS MATERIAL	95% CELLULOSE FIBER	None Detected
2	Yes	Beige Fibrous Cloth				
Sample analyzed as individual layers.						
64039-31	94	4/25/2019	Police Garage	20% METAL FOIL	20% CELLULOSE FIBER	None Detected
3	No	Beige & Grey Fibrous/Pliable Jacket		50% NON FIBROUS MATERIAL	10% FIBROUS GLASS	
Sample analyzed as individual layers.						

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Lab ID / Layer	Cust. ID / Homogenous	Sample Date / Description	Sample Location	Non Fibrous	Non Asbestos Fibers	Asbestos Fibers
64039-32	95	4/25/2019	Police Garage	3% WOLLASTONITE	5% CELLULOSE FIBER	<1% TREMOLITE
1	Yes	White Pliable Mastic		92% NON FIBROUS MATERIAL		
<1% = trace, recommend TEM for confirmation.						
64039-32	95	4/25/2019	Police Garage	5% NON FIBROUS MATERIAL	95% CELLULOSE FIBER	None Detected
2	Yes	Beige Fibrous Cloth				
Sample analyzed as individual layers.						
64039-32	95	4/25/2019	Police Garage	70% NON FIBROUS MATERIAL	5% CELLULOSE FIBER	25% CHRYSOTILE
3	Yes	White Fibrous/Granular Insulation				
Sample analyzed as individual layers.						

Natalie Ford

Analyst: Natalie Ford

NIST Signatory: Natalie Ford, Microscopist

Date Released: 5/1/2019

This Certificate of Analysis presents analytical data covered by this laboratory's accreditation under the National Voluntary Laboratory Accreditation Program (NVLAP). Detection, identification, and quantification of asbestos in certain building materials (e.g., floor tiles, caulk, asphalts, roofing materials) by PLM is difficult due to interfering matrix components. PLM technique has an estimated detection limit of 1% (v:v). Fibers smaller than 0.25 um cannot be detected; hence, correlative techniques should be considered for data verification. Non-detection of asbestos in certain materials should be verified by analytical electron microscopy techniques (refer to AHERA criteria). Quantifications are estimated by calibrated visual estimate, unless otherwise noted. The estimated measurement of uncertainty in PLM analysis is available upon request. The data reported herein relates only to those samples analyzed. Any information supplied by the Customer can affect the validity of results. Results apply to the sample as received. This report shall not be reproduced, except in full, without the written permission of senior managers of this laboratory. This report shall not be used to claim product endorsement by NVLAP or any agency of the U.S. Government.

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ASBESTOS FIELD INSPECTION FORM/CHAIN OF CUSTODY

ALS Project #: 12752 Project Name: Civic Center Project Location: Portsmouth Jail

Date Sampled: 4/25/19 Results Due: Standard Inspector(s): T. Martin / T. Baker ALS Lims #: L24039

Sample #	Sample Description	Sample Location	Quantity	*Condition G/D/SD	Friable Y/N
64	12"x12" green flm	Sheriffs ~~police~~ office		G	N
65	brown cove base w/adhesive	Sheriffs ~~police~~ office at bathrooms		G	N
66	12"x12" blue flm	Sheriffs ~~police~~ office mens bathroom		G	N
67	tall brown cove base w/adhesive	Sheriffs ~~police~~ office		G	N
68	drywall wall	Sheriffs ~~police~~ office mens bathroom		G	Y
69	drywall ceilk	Sheriffs ~~police~~ office hall @ security door		G	Y
70	2'x2' small pinhole & fissure CT	Sheriffs ~~police~~ office		G	N
71	tall brown cove base w/adhesive	Sheriffs ~~police~~ office at bathrooms		G	N
72	Gray Cove Base	~~Chief~~ Major Office		G	N
73	door ceilk	Sheriffs ~~police~~ office		G	N

*Condition - (G) Good (D) Damaged (SD) Significantly Damaged

Special Instructions:

Released By:	Company	Date/Time	Received By:	Company	Date/Time
T. Martin	ALS	4/25/19	Cameron Hawkins	ALS	4/26/19

ASBESTOS FIELD INSPECTION FORM/CHAIN OF CUSTODY

ALS Project #: 12752 Project Name: Civic Center Project Location: Portsmouth Jail

Date Sampled: 4/25/19 Results Due: Standard Inspector(s): T. Martin / T. Baker ALS Lims #: 64639

	Sample #	Sample Description	Sample Location	Quantity	*Condition G/D/SD	Friable Y/N
11	74	12"x12" white w/brown spec ft w/ adhesive	visiting room hall		G	N
12	75	gray cavebase w/adhesive	hall @ visitation booth		G	N
13	76	12"x12 brown w/white spec ft/m	2nd fl. medical foyer		G	N
14	77	5" OD mudded elbow	2nd fl. medical office		G	Y
15	78	roof caulk	exterior @ penthouses		G	N
16	79	cementitious roofing material	jail roof		G	Y
17	80	cementitious roofing material	jail roof		G	Y
18	81	flashing adhesive	jail roof		G	N
19	82	cementitious roofing material	penthouse roof		G	Y
20	83	flashing tar	penthouse roof		G	N

*Condition - (G) Good (D) Damaged (SD) Significantly Damaged

Special Instructions:

Released By:	Company	Date/Time	Received By:	Company	Date/Time
T. Martin	ALS	4/25/19	Cameron Hawkins	ALS	4/26/19
Released By:	Company	Date/Time	Received By:	Company	Date/Time

ASBESTOS FIELD INSPECTION FORM/CHAIN OF CUSTODY

ALS Project #: 12752 Project Name: Civic Center Project Location: Portsmouth Jail

Date Sampled: 4/25/19 Results Due: Standard Inspector(s): T. Martin / T. Baker ALS Lims #: L24039

	Sample #	Sample Description	Sample Location	Quantity	*Condition G/D/SD	Friable Y/N
21	84	12"x12" gray w/ white spec ft w/ adhesive	corrections office layer 1		G	N
22	85	12" x 12" white ft w/ adhesive	corrections office layer 2		G	N
23	86	12" x 12" beige ft w/ adhesive	corrections office layer 3		G	N
24	87	12"x12" gray w/ white spec ft w/ adhesive	back office layer 1		G	N
25	88	12"x12" white ft w/ adhesive	back office layer 2		G	N
26	89	12"x12" beige ft/m	back office layer 3		G	N
27	90	7" OD pipe insulation	police garage		G	Y
28	91	fireproofing	police garage		G	Y
29	92	7" OD mudded pipe insulation	police garage		G	Y
30	93	7" OD mudded elbow	police garage		G	Y

*Condition - (G) Good (D) Damaged (SD) Significantly Damaged

Special Instructions:

Released By:	Company	Date/Time	Received By:	Company	Date/Time
T. Martin	ALS	4/25/19	Cameron Hawkins	ALS	4/26/19
Released By:	Company	Date/Time	Received By:	Company	Date/Time

ASBESTOS FIELD INSPECTION FORM/CHAIN OF CUSTODY

ALS Project #: 12752 Project Name: Civic Center Project Location: Portsmouth Jail

Date Sampled: 4/25/19 Results Due: Standard Inspector(s): T. Martin / T. Baker ALS Lims #: 64039

Sample #	Sample Description	Sample Location	Quantity	*Condition G/D/SD	Friable Y/N
31 99	4" OD muzzle pipe insulation	police garage		G	N
32 95	4" OD muzzle elbow	police garage		G	Y

*Condition - (G) Good (D) Damaged (SD) Significantly Damaged

Special Instructions:

Released By:	Company	Date/Time	Received By:	Company	Date/Time
T. Martin	ALS	4/25/19	Cameron Gaulins	ALS	4/26/19

APPLIED LABORATORY SERVICES

Commonwealth of Virginia Asbestos Analytical Laboratory # 3333000153
NVLAP Lab # 200515-0

Certificate of Analysis

Analysis of Bulk Building Materials by Polarized Light Microscopy Techniques
EPA Test Method (EPA/600/R-93/116)

ALS Account:	01-163	**LIMS ID:**	ALS-2019-64083
Customer:	ALS Consulting 4101 Granby Street Norfolk, VA 23504	**Project Name:**	Portsmouth Civic Center
		ProjectNo:	12752
		Location:	Portsmouth Jail Basement
P O:		**Samples Received:**	4/30/2019
TAT:	ALS Standard	**Date Analyzed:**	5/2/2019

Lab ID / Layer	Cust. ID / Homogenous	Sample Date / Description	Sample Location	Non Fibrous	Non Asbestos Fibers	Asbestos Fibers
64083-1	96	4/30/2019	Hall, 911 Call Center	95% NON FIBROUS MATERIAL		5% CHRYSOTILE
1	Yes	Black Granular 12x12 Floor Tile				
64083-1	96	4/30/2019	Hall, 911 Call Center	97% NON FIBROUS MATERIAL		3% CHRYSOTILE
2	Yes	Black Adhesive Mastic				
Sample analyzed as individual layers.						
64083-2	97	4/30/2019	Hall, 911 Call Center	95% NON FIBROUS MATERIAL		5% CHRYSOTILE
1	Yes	Black Granular 12x12 Floor Tile				
64083-2	97	4/30/2019	Hall, 911 Call Center	96% NON FIBROUS MATERIAL	1% CELLULOSE FIBER	3% CHRYSOTILE
2	Yes	Black Adhesive Mastic				
Sample analyzed as individual layers.						
64083-3	98	4/30/2019	Hall, 911 Call Center	100% NON FIBROUS MATERIAL		None Detected
1	Yes	Black Pliable Cove Base				
64083-3	98	4/30/2019	Hall, 911 Call Center	100% NON FIBROUS MATERIAL		None Detected
2	Yes	Brown Adhesive Mastic				
Sample analyzed as individual layers.						
64083-4	99	4/30/2019	Hall, 911 Call Center at Mech. Rm.	100% NON FIBROUS MATERIAL		None Detected
1	Yes	White Granular 12x12 Floor Tile				
64083-4	99	4/30/2019	Hall, 911 Call Center at Mech. Rm.	98% NON FIBROUS MATERIAL	2% POLYETHYLENE	None Detected
2	Yes	Black Adhesive Mastic				
Sample analyzed as individual layers.						

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Lab ID / Layer	Cust. ID / Homogenous	Sample Date / Description	Sample Location	Non Fibrous	Non Asbestos Fibers	Asbestos Fibers
64083-5	100	4/30/2019	Hall, 911 Call Center at Mech. Rm.	100% NON FIBROUS MATERIAL		None Detected
1	Yes	White Granular 12x12 Floor Tile				
64083-5	100	4/30/2019	Hall, 911 Call Center at Mech. Rm.	98% NON FIBROUS MATERIAL	2% POLYETHYLENE	None Detected
2	Yes	Black Adhesive Mastic				
Sample analyzed as individual layers.						
64083-6	101	4/30/2019	Hall, 911 Call Center at Mech. Rm.	100% NON FIBROUS MATERIAL		None Detected
1	Yes	Tan Pliable Cove Base				
64083-6	101	4/30/2019	Hall, 911 Call Center at Mech. Rm.	100% NON FIBROUS MATERIAL		None Detected
2	Yes	Yellow Adhesive Mastic				
Sample analyzed as individual layers.						
64083-7	102	4/30/2019	Kitchen Area Next To Women's RR	100% NON FIBROUS MATERIAL		None Detected
1	Yes	Grey Pliable Cove Base				
64083-7	102	4/30/2019	Kitchen Area Next To Women's RR	100% NON FIBROUS MATERIAL		None Detected
2	No	Yellow & Brown Adhesive Mastic				
Sample analyzed as individual layers.						
64083-8	103	4/30/2019	Homicide Storage Rm.	97% NON FIBROUS MATERIAL		3% CHRYSOTILE
1	Yes	Grey Granular 12x12 Floor Tile				
64083-8	103	4/30/2019	Homicide Storage Rm.	95% NON FIBROUS MATERIAL		5% CHRYSOTILE
2	Yes	Black Adhesive Mastic				
Sample analyzed as individual layers.						
64083-9	104	4/30/2019	Homicide Storage Rm.	100% NON FIBROUS MATERIAL		None Detected
1	Yes	Grey Pliable Cove Base				
64083-9	104	4/30/2019	Homicide Storage Rm.	100% NON FIBROUS MATERIAL		None Detected
2	Yes	Brown Adhesive Mastic				
Sample analyzed as individual layers.						
64083-10	105	4/30/2019	Homicide Storage Rm.	30% NON FIBROUS MATERIAL	40% FIBROUS GLASS 30% CELLULOSE FIBER	None Detected
1	No	Beige & White Fibrous/Granular 2x2 Ceiling Tile				
64083-11	106	4/30/2019	Homicide Storage Rm.	18% NON FIBROUS MATERIAL	80% CELLULOSE FIBER	2% CHRYSOTILE
1	No	White Fibrous/Pliable Jacket				
64083-11	106	4/30/2019	Homicide Storage Rm.	65% NON FIBROUS MATERIAL	5% SYNTHETIC FIBER 10% FIBROUS GLASS	20% CHRYSOTILE
2	Yes	Grey Fibrous/Granular Insulation				
Sample analyzed as individual layers.						

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Lab ID / Layer	Cust. ID / Homogenous	Sample Date / Description	Sample Location	Non Fibrous	Non Asbestos Fibers	Asbestos Fibers
64083-12	107	4/30/2019	Police Garage P & E Office	100% NON FIBROUS MATERIAL		None Detected
1	Yes	Beige Granular 12x12 Floor Tile				
64083-12	107	4/30/2019	Police Garage P & E Office	98% NON FIBROUS MATERIAL		2% CHRYSOTILE
2	Yes	Black Adhesive Mastic				
Sample analyzed as individual layers.						
64083-13	108	4/30/2019	Police Garage P & E Office	100% NON FIBROUS MATERIAL		None Detected
1	Yes	Grey Pliable Cove Base				
64083-13	108	4/30/2019	Police Garage P & E Office	100% NON FIBROUS MATERIAL		None Detected
2	Yes	Brown Adhesive Mastic				
Sample analyzed as individual layers.						
64083-14	109	4/30/2019	Police Garage P & E Office	88% NON FIBROUS MATERIAL	2% FIBROUS GLASS 10% CELLULOSE FIBER	None Detected
1	No	Beige & White Fibrous/Granular Drywall				
64083-15	110	4/30/2019	Police Garage P & E Office	30% NON FIBROUS MATERIAL	30% FIBROUS GLASS 40% CELLULOSE FIBER	None Detected
1	No	Beige & White Fibrous/Granular 2x2 Ceiling Tile				
64083-16	111	4/30/2019	Garage Maint. Storage	45% NON FIBROUS MATERIAL	55% FIBROUS GLASS	None Detected
1	No	White Fibrous/Pliable Jacket				
64083-17	112	4/30/2019	Hall, 911 Call Center	30% NON FIBROUS MATERIAL	30% FIBROUS GLASS 40% CELLULOSE FIBER	None Detected
1	No	Beige & White Fibrous/Granular 2x2 Ceiling Tile				
64083-18	113	4/30/2019	Kitchen Area Next to Women's RR	100% NON FIBROUS MATERIAL		None Detected
1	Yes	Black Adhesive Mastic				
64083-19	114	4/30/2019	Kitchen Area Next to Women's RR	100% NON FIBROUS MATERIAL		None Detected
1	Yes	White Granular Plaster				
64083-19	114	4/30/2019	Kitchen Area Next to Women's RR	100% NON FIBROUS MATERIAL		None Detected
2	Yes	White Granular Textured Plaster				
Sample analyzed as individual layers.						

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Lab ID / Layer	Cust. ID / Homogenous	Sample Date / Description	Sample Location	Non Fibrous	Non Asbestos Fibers	Asbestos Fibers
64083-19	114	4/30/2019	Kitchen Area Next to Women's RR	90% NON FIBROUS MATERIAL	10% CELLULOSE FIBER	None Detected
3	No	Beige & White Fibrous/Granular Drywall				
Sample analyzed as individual layers.						
64083-20	115	4/30/2019	Kitchen Area Next to Women's RR	100% NON FIBROUS MATERIAL		None Detected
1	Yes	Grey Granular 12x12 Floor Tile				
64083-20	115	4/30/2019	Kitchen Area Next to Women's RR	100% NON FIBROUS MATERIAL		None Detected
2	Yes	Yellow Adhesive Mastic				
Sample analyzed as individual layers.						
64083-21	116	4/30/2019	Rm. 35 911 Call Center	10% NON FIBROUS MATERIAL	90% FIBROUS GLASS	None Detected
1	No	White Fibrous 2x2 Ceiling Tile				
64083-22	117	4/30/2019	Entrance to 911 Call Center	85% NON FIBROUS MATERIAL	5% FIBROUS GLASS 2% CELLULOSE FIBER	8% CHRYSOTILE
1	Yes	Black Fibrous/Adhesive Tar				
64083-23	118	4/30/2019	Vehicle Maint. Coordinator Office	100% NON FIBROUS MATERIAL		None Detected
1	Yes	Beige Granular 12x12 Floor Tile				
64083-23	118	4/30/2019	Vehicle Maint. Coordinator Office	95% NON FIBROUS MATERIAL		5% CHRYSOTILE
2	Yes	Black Adhesive Mastic				
Sample analyzed as individual layers.						
64083-24	119	4/30/2019	Police Administration Office	100% NON FIBROUS MATERIAL		None Detected
1	Yes	Grey Granular 12x12 Floor Tile				
64083-25	120	4/30/2019	Police Administration Office	100% NON FIBROUS MATERIAL		None Detected
1	Yes	Black Pliable Cove Base				
64083-25	120	4/30/2019	Police Administration Office	100% NON FIBROUS MATERIAL		None Detected
2	Yes	White Adhesive Mastic				
Sample analyzed as individual layers.						
64083-25	120	4/30/2019	Police Administration Office	100% NON FIBROUS MATERIAL		None Detected
3	Yes	Grey Cementitious Material				
Sample analyzed as individual layers.						

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Lab ID / Layer	Cust. ID / Homogenous	Sample Date / Description	Sample Location	Non Fibrous	Non Asbestos Fibers	Asbestos Fibers
64083-26	121	4/30/2019	Police Administration Office	88% NON FIBROUS MATERIAL	2% FIBROUS GLASS 10% CELLULOSE FIBER	None Detected
1	No	Beige & White Fibrous/Granular Drywall				
64083-27	122	4/30/2019	Police Administration Office	10% NON FIBROUS MATERIAL	90% FIBROUS GLASS	None Detected
1	No	White Fibrous 2x2 Ceiling Tile				
64083-28	123	4/30/2019	Police Administration Office	5% NON FIBROUS MATERIAL	95% FIBROUS GLASS	None Detected
1	Yes	White Fibrous Fireproofing				
64083-29	124	4/30/2019	Police Evidence Kitchen	98% NON FIBROUS MATERIAL	2% CELLULOSE FIBER	None Detected
1	Yes	Grey Pliable Mastic				
64083-30	125	4/30/2019	Police Evidence Kitchen	100% NON FIBROUS MATERIAL		None Detected
1	Yes	White Granular Surfacing Material				
64083-30	125	4/30/2019	Police Evidence Kitchen	90% NON FIBROUS MATERIAL	10% CELLULOSE FIBER	None Detected
2	No	Beige & White Fibrous/Granular Drywall				
Sample analyzed as individual layers.						
64083-31	126	4/30/2019	Garage Office	100% NON FIBROUS MATERIAL		None Detected
1	Yes	Grey Granular 12x12 Floor Tile				
64083-31	126	4/30/2019	Garage Office	98% NON FIBROUS MATERIAL	2% CELLULOSE FIBER	None Detected
2	Yes	Yellow Adhesive Mastic				
Sample analyzed as individual layers.						
64083-32	127	4/30/2019	Garage Office	100% NON FIBROUS MATERIAL		None Detected
1	Yes	Tan Granular 12x12 Floor Tile				
64083-32	127	4/30/2019	Garage Office	97% NON FIBROUS MATERIAL	1% SYNTHETIC FIBER 2% CELLULOSE FIBER	None Detected
2	Yes	Yellow Adhesive Mastic				
Sample analyzed as individual layers.						
64083-33	128	4/30/2019	Garage Office	30% NON FIBROUS MATERIAL	30% FIBROUS GLASS 40% CELLULOSE FIBER	None Detected
1	No	Beige & White Fibrous/Granular 2x2 Ceiling Tile				
64083-34	129	4/30/2019	Magistrates Lobby	10% NON FIBROUS MATERIAL	90% FIBROUS GLASS	None Detected
1	No	Grey Fibrous/Granular Fireproofing				

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Lab ID / Layer	Cust. ID / Homogenous	Sample Date / Description	Sample Location	Non Fibrous	Non Asbestos Fibers	Asbestos Fibers
64083-35	130	4/30/2019	Magistrates Lobby	88% NON FIBROUS MATERIAL	2% FIBROUS GLASS 10% CELLULOSE FIBER	None Detected
1	No	Beige & White Fibrous/Granular Drywall				
64083-36	131	4/30/2019	Magistrates Lobby	30% NON FIBROUS MATERIAL	30% FIBROUS GLASS 40% CELLULOSE FIBER	None Detected
1	No	Beige & White Fibrous/Granular 2x2 Ceiling Tile				
64083-37	132	4/30/2019	Magistrates Lobby Bathroom	30% NON FIBROUS MATERIAL	30% FIBROUS GLASS 40% CELLULOSE FIBER	None Detected
1	No	Beige & White Fibrous/Granular 2x2 Ceiling Tile				
64083-38	133	4/30/2019	Magistrates Janitor Closet	98% NON FIBROUS MATERIAL	2% CELLULOSE FIBER	None Detected
1	Yes	White Granular 12x12 Floor Tile				
64083-38	133	4/30/2019	Magistrates Janitor Closet	100% NON FIBROUS MATERIAL		None Detected
2	Yes	Yellow Adhesive Mastic				
Sample analyzed as individual layers.						
64083-39	134	4/30/2019	Magistrates Kitchen	98% NON FIBROUS MATERIAL	2% CELLULOSE FIBER	None Detected
1	Yes	Grey Pliable Mastic				
64083-40	135	4/30/2019	Magistrates Kitchen Storage	100% NON FIBROUS MATERIAL		None Detected
1	Yes	Grey Pliable Cove Base				
64083-40	135	4/30/2019	Magistrates Kitchen Storage	100% NON FIBROUS MATERIAL		None Detected
2	Yes	Clear Adhesive Mastic				
Sample analyzed as individual layers.						
64083-40	135	4/30/2019	Magistrates Kitchen Storage	100% NON FIBROUS MATERIAL		None Detected
3	Yes	White Granular Surfacing Material				
Sample analyzed as individual layers.						

Natalie Ford

Analyst: Natalie Ford

NIST Signatory: Natalie Ford, Microscopist

Date Released: 5/6/2019

This Certificate of Analysis presents analytical data covered by this laboratory's accreditation under the National Voluntary Laboratory Accreditation Program (NVLAP). Detection, identification, and quantification of asbestos in certain building materials (e.g., floor tiles, caulk, asphalts, roofing materials) by PLM is difficult due to interfering matrix components. PLM technique has an estimated detection limit of 1% (v:v). Fibers smaller than 0.25 um cannot be detected; hence, correlative techniques should be considered for data verification. Non-detection of asbestos in certain materials should be verified by analytical electron microscopy techniques (refer to AHERA criteria). Quantifications are estimated by calibrated visual estimate, unless otherwise noted. The estimated measurement of uncertainty in PLM analysis is available upon request. The data reported herein relates only to those samples analyzed. Any information supplied by the Customer can affect the validity of results. Results apply to the sample as received. This report shall not be reproduced, except in full, without the written permission of senior managers of this laboratory. This report shall not be used to claim product endorsement by NVLAP or any agency of the U.S. Government.

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ASBESTOS FIELD INSPECTION FORM/CHAIN OF CUSTODY

ALS Project #: 12752 Project Name: Portsmouth Civic Center Project Location: Portsmouth Jail Basement

Date Sampled: 4/30/19 Results Due: Standard Inspector(s): T. Martin / T. Baker ALS Lims #: 64683

AB1D

	Sample #	Sample Description	Sample Location	Quantity	*Condition G/D/SD	Friable Y/N
1	96	12"x12" black ft/m	hall, 911 call center		G	N
2	97	12"x12" black ft/m	hall, 911 call center		G	N
3	98	black ~~gray~~ covebase w/ adhesive	hall, 911 call center		G	N
4	99	12"x12" white ft/m	hall, 911 call center @ mech rm.		G	N
5	100	12"x12" white ft/m	hall, 911 call center @ mech rm.		G	N
6	101	tan covebase w/ adhesive	hall 911 call center @ mech rm.		G	N
7	102	gray covebase w/ adhesive	kitchen area next to women's RR		G	N
8	103	12"x12" gray ft/m	homicide storage rm.		G	N
9	104	gray covebase w/ adhesive	homicide storage rm.		G	N
10	105	2'x2' acoustical ceiling tile	homicide storage rm.		G	Y

*Condition - (G) Good (D) Damaged (SD) Significantly Damaged

Special Instructions:

Released By:	Company	Date/Time	Received By:	Company	Date/Time
T. Martin	ALS	4/30/19	Cameron Hawkins	ALS	4/30/19

ASBESTOS FIELD INSPECTION FORM/CHAIN OF CUSTODY

ALS Project #: 12752 Project Name: Portsmouth Civic Center Project Location: Portsmouth Jail Basement

Date Sampled: 4/30/19 Results Due: Standard Inspector(s): T. Martin / T. Baker ALS Lims #: 64083

AB ID	Sample #	Sample Description	Sample Location	Quantity	*Condition G/D/SD	Friable Y/N
11	106	2" OD molded elbow	homicide storage rm.		G	Y
12	107	12"x12" tan w/ gray spec ft/m	police garage P&E office		G	N
13	108	gray covebase w/ adhesive	police garage P&E office		G	N
14	109	drywall wall	police garage P&E office		G	Y
15	110	2'x2' small pinhole & fissure CT	police garage P&E office		G	Y
16	111	duct work insulation	garage maint. storage		G	Y
17	112	2'x2' small pinhole & fissure CT	hall, 911 call center		G	Y
18	113	black sink mastic	kitchen area next to women's RR	5 SF	G	Y
19	114	drywall ceiling	kitchen area next to women's RR		G	Y
20	115	12"x12" gray w/white spec ft w/ adhesive	kitchen area next to women's RR		G	N

*Condition - (G) Good (D) Damaged (SD) Significantly Damaged

Special Instructions:

Released By:	Company	Date/Time	Received By:	Company	Date/Time
T. Martin	ALS	4/30/19	Cameron Hawkins	ALS	4/30/19
Released By:	Company	Date/Time	Received By:	Company	Date/Time

ASBESTOS FIELD INSPECTION FORM/CHAIN OF CUSTODY

ALS Project #: 12752 Project Name: Civic Center Project Location: Police Admin / 911 Call Center

Date Sampled: 4/30/19 Results Due: Standard Inspector(s): T. Martin / T. Bake ALS Lims #: C4083

HB ID	Sample #	Sample Description	Sample Location	Quantity	*Condition G/D/SD	Friable Y/N
21	116	2'x2' flat white CT	rm. 35 911 call center		G	Y
22	117	5" OD pipe elbow tar	entrance to 911 call center		G	N
23	118	12"x12" tan w/ gray spec fthm	vehicle maint. coordinator office		G	N
24	119	12"x12" gray w/ white spec ft w/ adhesive	police administration office		G	N
25	120	black covebase w/ adhesive	police administration office		G	N
26	121	drywall wall	police administration office		G	Y
27	122	2'x2' flat white ceiling tile	police administration office		G	Y
28	123	fireproofing	police administration office		G	Y
29	124	gray sink mastic	police evidence kitchen		G	N
30	125	drywall wall	police evidence kitchen		G	Y

*Condition - (G) Good (D) Damaged (SD) Significantly Damaged

Special Instructions:

Released By:	Company	Date/Time	Received By:	Company	Date/Time
T. Martin	ALS	4/30/19	Cameron Hawkins	ALS	4/30/19

ASBESTOS FIELD INSPECTION FORM/CHAIN OF CUSTODY

ALS Project #: 12752 Project Name: Civic Center Project Location: Magistrates Bldg

Date Sampled: 4/30/19 Results Due: Standard Inspector(s): T. Martin / T. Baker ALS Lims #: C24083

AB ID	Sample #	Sample Description	Sample Location	Quantity	*Condition G/D/SD	Friable Y/N
31	126	12"x12" gray w/white spec ft layer 1 w/adhesive	garage office		G	N
32	127	12"x12 beige ft w/ adhesive layer 2	garage office		G	N
33	128	2'x2' small pinhole & fissure CT	garage office		G	Y
34	129	fireproofing	magistrates lobby		G	Y
35	130	drywall wall	magistrates lobby		G	Y
36	131	2'x2' small pinhole ceiling tile	magistrates lobby		G	Y
37	132	2'x2' flat white ceiling tile	magistrates lobby bathroom		G	Y
38	133	12"x12" white w/blue spec ft w/ adhesive	magistrates janitor closet		G	N
39	134	gray sink mastic	magistrates kitchen		G	N
40	135	gray covebase w/ adhesive	magistrates kitchen storage		G	N

*Condition - (G) Good (D) Damaged (SD) Significantly Damaged

Special Instructions:

Released By:	Company	Date/Time	Received By:	Company	Date/Time
T. Martin	ALS	4/30/19	Cameron Hawkins	ALS	4/30/19

APPLIED LABORATORY SERVICES

Commonwealth of Virginia Asbestos
Analytical Laboratory # 3333000153
NVLAP Lab # 200515-0

Certificate of Analysis

Analysis of Bulk Building Materials by Polarized Light Microscopy Techniques
EPA Test Method (EPA/600/R-93/116)

ALS Account: 01-163
Customer: ALS Consulting
4101 Granby Street
Norfolk, VA 23504
P O:
TAT: ALS Standard

LIMS ID: ALS-2019-64106
Project Name: Civic Center
ProjectNo: 12752
Location: Roofs/Uniform Police Areas
Samples Received: 5/1/2019
Date Analyzed: 5/3/2019

Lab ID / Layer	Cust. ID / Homogenous	Sample Date / Description	Sample Location	Non Fibrous	Non Asbestos Fibers	Asbestos Fibers
64106-1	136	5/1/2019	Magistrates Roof	45% NON FIBROUS MATERIAL	45% CELLULOSE FIBER 10% FIBROUS GLASS	None Detected
1	Yes	Black Fibrous Tar Paper				
64106-1	136	5/1/2019	Magistrates Roof	100% NON FIBROUS MATERIAL		None Detected
2	Yes	Yellow Foam				
Sample analyzed as individual layers.						
64106-2	137	5/1/2019	Magistrates Roof	45% NON FIBROUS MATERIAL	45% CELLULOSE FIBER 10% FIBROUS GLASS	None Detected
1	Yes	Black Fibrous Tar Paper				
64106-2	137	5/1/2019	Magistrates Roof	100% NON FIBROUS MATERIAL		None Detected
2	Yes	Yellow Foam				
Sample analyzed as individual layers.						
64106-3	138	5/1/2019	Magistrates Roof	90% NON FIBROUS MATERIAL	10% SYNTHETIC FIBER	None Detected
1	Yes	White Pliable Flashing				
64106-4	139	5/1/2019	Magistrates Roof	100% NON FIBROUS MATERIAL		None Detected
1	Yes	White Pliable Caulking				
64106-5	140	5/1/2019	Jail Window	98% NON FIBROUS MATERIAL		2% CHRYSOTILE
1	Yes	Beige Granular Glazing				
64106-6	141	5/1/2019	Jail Window	99% NON FIBROUS MATERIAL	1% FIBROUS GLASS	None Detected
1	Yes	Grey Pliable Caulking				
64106-7	142	5/1/2019	Underside Awning (Jail)	100% NON FIBROUS MATERIAL		None Detected
1	Yes	White Granular Plaster				

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Lab ID / Layer	Cust. ID / Homogenous	Sample Date / Description	Sample Location	Non Fibrous	Non Asbestos Fibers	Asbestos Fibers
64106-8	143	5/1/2019	Microwave Rm.	100% NON FIBROUS MATERIAL		None Detected
1	Yes	Beige Granular 12 x 12 Floor Tile				
64106-8	143	5/1/2019	Microwave Rm.	99% NON FIBROUS MATERIAL	1% CELLULOSE FIBER	None Detected
2	Yes	Red Adhesive Mastic				
Sample analyzed as individual layers.						
64106-9	144	5/1/2019	Police HQ Roof	45% NON FIBROUS MATERIAL	45% CELLULOSE FIBER 10% FIBROUS GLASS	None Detected
1	Yes	Black Fibrous Tar Paper				
64106-9	144	5/1/2019	Police HQ Roof	100% NON FIBROUS MATERIAL		None Detected
2	Yes	Yellow Foam				
Sample analyzed as individual layers.						
64106-10	145	5/1/2019	Police HQ Roof	45% NON FIBROUS MATERIAL	45% CELLULOSE FIBER 10% FIBROUS GLASS	None Detected
1	Yes	Black Fibrous Tar Paper				
64106-10	145	5/1/2019	Police HQ Roof	100% NON FIBROUS MATERIAL		None Detected
2	Yes	Yellow Foam				
Sample analyzed as individual layers.						
64106-11	146	5/1/2019	Police HQ Roof	95% NON FIBROUS MATERIAL	5% FIBROUS GLASS	None Detected
1	Yes	Grey Pliable Caulking				
64106-12	147	5/1/2019	Police HQ Penthouse	80% NON FIBROUS MATERIAL	20% CELLULOSE FIBER	None Detected
1	Yes	White Fibrous Fireproofing				
64106-13	148	5/1/2019	Police HQPenthouse	5% WOLLASTONITE 95% NON FIBROUS MATERIAL		None Detected
1	Yes	White Adhesive Mastic				
64106-13	148	5/1/2019	Police HQPenthouse	30% METAL FOIL 20% NON FIBROUS MATERIAL	40% CELLULOSE FIBER 10% FIBROUS GLASS	None Detected
2	No	Grey & Tan Fibrous/Granular Jacket				
Sample analyzed as individual layers.						
64106-13	148	5/1/2019	Police HQPenthouse	2% NON FIBROUS MATERIAL	98% FIBROUS GLASS	None Detected
3	Yes	Yellow Fibrous Insulation				
Sample analyzed as individual layers.						
64106-14	149	5/1/2019	Police HQ Penthouse	75% NON FIBROUS MATERIAL	20% CELLULOSE FIBER 5% FIBROUS GLASS	None Detected
1	Yes	Black Fibrous/Adhesive Flashing				
64106-15	150	5/1/2019	J & D Roof	45% NON FIBROUS MATERIAL	45% CELLULOSE FIBER 10% FIBROUS GLASS	None Detected
1	Yes	Black Fibrous Tar Paper				
64106-15	150	5/1/2019	J & D Roof	100% NON FIBROUS MATERIAL		None Detected
2	Yes	Yellow Foam				
Sample analyzed as individual layers.						

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Lab ID / Layer	Cust. ID / Homogenous	Sample Date / Description	Sample Location	Non Fibrous	Non Asbestos Fibers	Asbestos Fibers
64106-15	150	5/1/2019	J & D Roof	5% NON FIBROUS MATERIAL	95% CELLULOSE FIBER	None Detected
3	Yes	Brown Fibrous Insulation				
Sample analyzed as individual layers.						
64106-16	151	5/1/2019	J & D Roof	45% NON FIBROUS MATERIAL	45% CELLULOSE FIBER 10% FIBROUS GLASS	None Detected
1	Yes	Black Fibrous Tar Paper				
64106-16	151	5/1/2019	J & D Roof	100% NON FIBROUS MATERIAL		None Detected
2	Yes	Yellow Foam				
Sample analyzed as individual layers.						
64106-17	152	5/1/2019	J & D Roof	100% NON FIBROUS MATERIAL		None Detected
1	Yes	Grey Pliable Caulking				
64106-17	152	5/1/2019	J & D Roof	100% NON FIBROUS MATERIAL		None Detected
2	Yes	Yellow Adhesive Mastic				
Sample analyzed as individual layers.						
64106-18	153	5/1/2019	J & D Roof	100% NON FIBROUS MATERIAL		None Detected
1	Yes	Beige Pliable Caulking				
64106-18	153	5/1/2019	J & D Roof	99% NON FIBROUS MATERIAL	1% CELLULOSE FIBER	None Detected
2	Yes	Yellow Adhesive Mastic				
Sample analyzed as individual layers.						
64106-19	154	5/1/2019	J & D Penthouse	80% NON FIBROUS MATERIAL	20% CELLULOSE FIBER	None Detected
1	Yes	White Fibrous Fireproofing				
64106-20	155	5/1/2019	J & D Penthouse	25% NON FIBROUS MATERIAL 20% METAL FOIL	45% CELLULOSE FIBER 10% FIBROUS GLASS	None Detected
1	No	Beige & Grey Fibrous/Granular Jacket				
64106-20	155	5/1/2019	J & D Penthouse	2% NON FIBROUS MATERIAL	98% FIBROUS GLASS	None Detected
2	Yes	Yellow Fibrous Insulation				
Sample analyzed as individual layers.						
64106-21	156	5/1/2019	Uniform Police Hall	30% NON FIBROUS MATERIAL	40% CELLULOSE FIBER 30% FIBROUS GLASS	None Detected
1	No	Beige & White Fibrous/Granular 2 x 2 Ceiling Tile				
64106-22	157	5/1/2019	Uniform Police Mens RR	30% NON FIBROUS MATERIAL	45% CELLULOSE FIBER 25% FIBROUS GLASS	None Detected
1	No	Beige & White Fibrous/Granular 2 x 2 Ceiling Tile				
64106-23	158	5/1/2019	Uniform Police Kitchen	94% NON FIBROUS MATERIAL	5% CELLULOSE FIBER 1% FIBROUS GLASS	None Detected
1	Yes	Grey Adhesive Mastic				

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Lab ID / Layer	Cust. ID / Homogenous	Sample Date / Description	Sample Location	Non Fibrous	Non Asbestos Fibers	Asbestos Fibers
64106-24	159	5/1/2019	Uniform Police Kitchen	90% NON FIBROUS MATERIAL	10% CELLULOSE FIBER	None Detected
1	No	Beige & White Fibrous/Granular Drywall				
64106-25	160	5/1/2019	Uniform Police Mens RR	80% NON FIBROUS MATERIAL	20% CELLULOSE FIBER	None Detected
1	Yes	Beige Fibrous Fireproofing				
64106-26	161	5/1/2019	Uniform Police Janitors Closet	100% NON FIBROUS MATERIAL		None Detected
1	Yes	Grey Pliable Cove Base				
64106-26	161	5/1/2019	Uniform Police Janitors Closet	100% NON FIBROUS MATERIAL		None Detected
2	Yes	Beige Adhesive Mastic				
Sample analyzed as individual layers.						
64106-26	161	5/1/2019	Uniform Police Janitors Closet	100% NON FIBROUS MATERIAL		None Detected
3	Yes	White Granular Surfacing Material				
Sample analyzed as individual layers.						
64106-27	162	5/1/2019	Uniform Police Old Lineup Rm.	100% NON FIBROUS MATERIAL		None Detected
1	Yes	Grey Granular 12 x 12 Floor Tile				
64106-27	162	5/1/2019	Uniform Police Old Lineup Rm.	100% NON FIBROUS MATERIAL		None Detected
2	Yes	Yellow Adhesive Mastic				
Sample analyzed as individual layers.						
64106-28	163	5/1/2019	Uniform Police Old Lineup Rm.	100% NON FIBROUS MATERIAL		None Detected
1	Yes	Grey Pliable Cove Base				
64106-28	163	5/1/2019	Uniform Police Old Lineup Rm.	100% NON FIBROUS MATERIAL		None Detected
2	Yes	Yellow Adhesive Mastic				
Sample analyzed as individual layers.						
64106-28	163	5/1/2019	Uniform Police Old Lineup Rm.	100% NON FIBROUS MATERIAL		None Detected
3	Yes	White Granular Surfacing Material				
Sample analyzed as individual layers.						
64106-29	164	5/1/2019	Uniform Police Old Sgt. Office	100% NON FIBROUS MATERIAL		None Detected
1	Yes	Grey Granular 12 x 12 Floor Tile				
64106-29	164	5/1/2019	Uniform Police Old Sgt. Office	100% NON FIBROUS MATERIAL		None Detected
2	Yes	Yellow Adhesive Mastic				
Sample analyzed as individual layers.						

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Lab ID / Layer	Cust. ID / Homogenous	Sample Date / Description	Sample Location	Non Fibrous	Non Asbestos Fibers	Asbestos Fibers
64106-30	165	5/1/2019	Uniform Police Old Lineup Rm.	30% NON FIBROUS MATERIAL	40% CELLULOSE FIBER 30% FIBROUS GLASS	None Detected
1	No	Beige & White Fibrous/Granular 2 x 2 Ceiling Tile				
64106-31	166	5/1/2019	Uniform Police Old Lineup Rm.	90% NON FIBROUS MATERIAL	10% CELLULOSE FIBER	None Detected
1	No	Beige & White Fibrous/Granular Drywall				
64106-32	167	5/1/2019	Uniform Patrol Old Report Writing Rm.	100% NON FIBROUS MATERIAL		None Detected
1	No	White Granular Surfacing Material				
64106-33	168	5/1/2019	Uniform Patrol Holding Cell 1	90% NON FIBROUS MATERIAL	10% CELLULOSE FIBER	None Detected
1	No	Beige & White Fibrous/Granular Ceiling Tile				
64106-34	169	5/1/2019	Uniform Patrol Old Report Writing Rm.	100% NON FIBROUS MATERIAL		None Detected
1	Yes	Grey Granular 12 x 12 Floor Tile				
64106-34	169	5/1/2019	Uniform Patrol Old Report Writing Rm.	99% NON FIBROUS MATERIAL	1% CELLULOSE FIBER	None Detected
2	Yes	Yellow Adhesive Mastic				
Sample analyzed as individual layers.						
64106-35	170	5/1/2019	Uniform Patrol Old Report Writing Rm.	100% NON FIBROUS MATERIAL		None Detected
1	Yes	White Granular 12 x 12 Floor Tile				
64106-35	170	5/1/2019	Uniform Patrol Old Report Writing Rm.	99% NON FIBROUS MATERIAL	1% CELLULOSE FIBER	None Detected
2	Yes	Yellow Adhesive Mastic				
Sample analyzed as individual layers.						
64106-36	171	5/1/2019	Uniform Patrol Property & Evidence Submission Rm.	99% NON FIBROUS MATERIAL	1% CELLULOSE FIBER	None Detected
1	Yes	Yellow Adhesive Mastic				
64106-36	171	5/1/2019	Uniform Patrol Property & Evidence Submission Rm.	97% NON FIBROUS MATERIAL		3% CHRYSOTILE
2	Yes	Black Granular 12 x 12 Floor Tile				
Sample analyzed as individual layers.						
64106-36	171	5/1/2019	Uniform Patrol Property & Evidence Submission Rm.	97% NON FIBROUS MATERIAL		3% CHRYSOTILE
3	Yes	Black Adhesive Mastic				
Sample analyzed as individual layers.						

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Lab ID / Layer	Cust. ID / Homogenous	Sample Date / Description	Sample Location	Non Fibrous	Non Asbestos Fibers	Asbestos Fibers
64106-37	172	5/1/2019	Uniform Patrol Side Hall	100% NON FIBROUS MATERIAL		None Detected
1	Yes	Grey Granular 12 x 12 Floor Tile				
64106-37	172	5/1/2019	Uniform Patrol Side Hall	99% NON FIBROUS MATERIAL	1% CELLULOSE FIBER	None Detected
2	Yes	Yellow Adhesive Mastic				
Sample analyzed as individual layers.						
64106-38	173	5/1/2019	Uniform Patrol Side Hall	100% NON FIBROUS MATERIAL		None Detected
1	Yes	White Granular 12 x 12 Floor Tile				
64106-38	173	5/1/2019	Uniform Patrol Side Hall	95% NON FIBROUS MATERIAL	2% CELLULOSE FIBER	3% CHRYSOTILE
2	Yes	Black Adhesive Mastic				
Sample analyzed as individual layers.						
64106-39	174	5/1/2019	Uniform Patrol Side Hall	100% NON FIBROUS MATERIAL		None Detected
1	Yes	Grey Pliable Cove Base				
64106-39	174	5/1/2019	Uniform Patrol Side Hall	100% NON FIBROUS MATERIAL		None Detected
2	Yes	Yellow Adhesive Mastic				
Sample analyzed as individual layers.						
64106-40	175	5/1/2019	Uniform Patrol Side Hall	30% NON FIBROUS MATERIAL	40% CELLULOSE FIBER 30% FIBROUS GLASS	None Detected
1	No	Beige & White Fibrous/Granular 2 x 2 Ceiling Tile				

Analyst: Kim Mantey

NIST Signatory: K. Mantey, Senior Microscopist

Date Released: 5/7/2019

This Certificate of Analysis presents analytical data covered by this laboratory's accreditation under the National Voluntary Laboratory Accreditation Program (NVLAP). Detection, identification, and quantification of asbestos in certain building materials (e.g., floor tiles, caulk, asphalts, roofing materials) by PLM is difficult due to interfering matrix components. PLM technique has an estimated detection limit of 1% (v:v). Fibers smaller than 0.25 um cannot be detected; hence, correlative techniques should be considered for data verification. Non-detection of asbestos in certain materials should be verified by analytical electron microscopy techniques (refer to AHERA criteria). Quantifications are estimated by calibrated visual estimate, unless otherwise noted. The estimated measurement of uncertainty in PLM analysis is available upon request. The data reported herein relates only to those samples analyzed. Any information supplied by the Customer can affect the validity of results. Results apply to the sample as received. This report shall not be reproduced, except in full, without the written permission of senior managers of this laboratory. This report shall not be used to claim product endorsement by NVLAP or any agency of the U.S. Government.

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ASBESTOS FIELD INSPECTION FORM/CHAIN OF CUSTODY

ALS Project #: 12752 Project Name: Civic Center Project Location: Roofs/Uniform Police Areas

Date Sampled: 5/1/19 Results Due: Std. Inspector(s): T. Martin / T. Baker ALS Lims #: 64106

ABID

	Sample #	Sample Description	Sample Location	Quantity	*Condition G/D/SD	Friable Y/N
1	136	roof foam	Magistrates roof		G	Y
2	137	roof foam	magistrates roof		G	Y
3	138	perimeter flashing	magistrates roof		G	N
4	139	roof caulk	magistrates roof		G	N
5	140	window Glaze	Jail window		G	Y
6	141	window caulk	Jail window		G	N
7	142	plaster	Underside awning (Jail)		G	Y
8	143	12"x12" white w/ gray streak ft w/adhesive	microwave rm.		G	N
9	144	foam roofing	police HQ roof		G	Y
10	145	roof foam	police HQ roof		G	Y

*Condition - (G) Good (D) Damaged (SD) Significantly Damaged

Special Instructions:

Released By:	Company	Date/Time	Received By:	Company	Date/Time
T. Martin	ALS	5/1/19	Cameron Hawkins	ALS	5/1/19
Released By:	Company	Date/Time	Received By:	Company	Date/Time

ASBESTOS FIELD INSPECTION FORM/CHAIN OF CUSTODY

ALS Project #: 12752 Project Name: Civic Center Project Location: Roofs/Uniform Police Areas

Date Sampled: 5/1/19 Results Due: Std. Inspector(s): T. Martin/T. Baker ALS Lims #: 641066

BID	Sample #	Sample Description	Sample Location	Quantity	*Condition G/D/SD	Friable Y/N
11	146	roof caulking	police HQ roof		G	N
12	147	fireproofing	police HQ penthouse		G	Y
13	148	duct work insulation	police HQ penthouse	500 sf	G	Y
14	149	penthouse flashing	police HQ penthouse		G	N
15	150	roof foam	J+D roof		G	Y
16	151	roof foam	J+D roof		G	Y
17	152	penthouse caulking	J+D roof		G	N
18	153	penthouse vent caulking	J+D roof		G	N
19	154	fireproofing	J+D penthouse		G	Y
20	155	duct work insulation	J+D penthouse	1,000 sf	G	Y

*Condition - (G) Good (D) Damaged (SD) Significantly Damaged

Special Instructions:

Released By:	Company	Date/Time	Received By:	Company	Date/Time
T. Martin	ALS	5/1/19	Cameron Hawkins	ALS	5/1/19

ASBESTOS FIELD INSPECTION FORM/CHAIN OF CUSTODY

ALS Project #: 12752 Project Name: Civic Center Project Location: Roofs / Uniform Police Areas

Date Sampled: 5/1/19 Results Due: Std. Inspector(s): T. Martin / T. Baker ALS Lims #: 64106

AB ID	Sample #	Sample Description	Sample Location	Quantity	*Condition G/D/SD	Friable Y/N
21	156	2'x2' small pinhole CT	uniform police hall		G	Y
22	157	2'x2' flat white CT	uniform police mens RR		G	Y
23	158	gray sink mastic	uniform police kitchen		G	Y
24	159	drywall wall	uniform police kitchen		G	Y
25	160	fireproofing	uniform police mens RR		G	Y
26	161	gray covebase w/ adhesive	uniform police janitors closet		G	N
27	162	12"x12" light blue w/ dark blue streak ft w/ adhesive	uniform police old lineup rm.		G	N
28	163	gray covebase w/ adhesive	uniform police old lineup rm.		G	N
29	164	12"x12" light blue w/ dark blue streak ft w/ adhesive	uniform police old sgt. office		G	N
30	165	2'x2' small pinhole & fissure CT	uniform police old lineup rm.		G	Y

*Condition - (G) Good (D) Damaged (SD) Significantly Damaged

Special Instructions:

Released By:	Company	Date/Time	Received By:	Company	Date/Time
T. Martin	ALS	5/1/19	Cameron Hawkins	ALS	5/1/19
Released By:	Company	Date/Time	Received By:	Company	Date/Time

ASBESTOS FIELD INSPECTION FORM/CHAIN OF CUSTODY

ALS Project #: 12752 Project Name: Civic Center Project Location: Roofs/Uniform Police Areas

Date Sampled: 5/1/19 Results Due: Std. Inspector(s): T. Martin / T. Baker ALS Lims #: 641106

AB ID	Sample #	Sample Description	Sample Location	Quantity	*Condition G/D/SD	Friable Y/N
31	166	drywall wall	uniform police old lineup rm.		G	Y
32	167	cmu block sealant	uniform patrol old report writing rm.		G	N
33	168	drywall ceiling tile	uniform patrol holding cell 1		G	Y
34	169	12"x12 gray w/white spec ft w/ adhesive layer 1	uniform patrol old report writing rm.		G	N
35	170	12"x12" white ft/m layer 2	uniform patrol old report writing rm.		G	N
36	171	12"x12" black ft/m	uniform patrol property & evidence submission rm. closet		G	N
37	172	12"x12" gray w/white spec ft/m w/adhesive layer 1	uniform patrol side hall		G	N
38	173	12"x12" white ft/m	uniform patrol side hall		G	N
39	174	gray covebase w/adhesive	uniform patrol side hall		G	N
40	175	2'x2' small pinhole & fissure CT	uniform patrol side hall		G	Y

*Condition - (G) Good (D) Damaged (SD) Significantly Damaged

Special Instructions:

Released By:	Company	Date/Time	Received By:	Company	Date/Time
T. Martin	ALS	5/1/19	Cameron Hawkins	ALS	5/1/19
Released By:	Company	Date/Time	Received By:	Company	Date/Time

APPLIED LABORATORY SERVICES

Commonwealth of Virginia Asbestos Analytical Laboratory # 3333000153
NVLAP Lab # 200515-0

Certificate of Analysis

Analysis of Bulk Building Materials by Polarized Light Microscopy Techniques
EPA Test Method (EPA/600/R-93/116)

ALS Account:	01-163	**LIMS ID:**	ALS-2019-64108
Customer:	ALS Consulting 4101 Granby Street Norfolk, VA 23504	**Project Name:**	Civic Center
		ProjectNo:	12752
		Location:	Circuit Court
P O:		**Samples Received:**	5/1/2019
TAT:	ALS Standard	**Date Analyzed:**	5/2/2019

Lab ID / Layer	Cust. ID / Homogenous	Sample Date / Description	Sample Location	Non Fibrous	Non Asbestos Fibers	Asbestos Fibers
64108-1	1	5/1/2019	Circuit Court 2nd Fl.	90% NON FIBROUS MATERIAL	2% FIBROUS GLASS	8% CHRYSOTILE
1	Yes	Black Adhesive Mastic				
64108-1	1	5/1/2019	Circuit Court 2nd Fl.	30% METAL FOIL	10% FIBROUS GLASS	None Detected
2	No	Beige & Grey Fibrous/Pliable Jacket		30% NON FIBROUS MATERIAL	30% CELLULOSE FIBER	
Sample analyzed as individual layers.						
64108-1	1	5/1/2019	Circuit Court 2nd Fl.	2% NON FIBROUS MATERIAL	98% FIBROUS GLASS	None Detected
3	Yes	White Fibrous Insulation				
Sample analyzed as individual layers.						
64108-2	2	5/1/2019	Circuit Court 2nd Fl.	93% NON FIBROUS MATERIAL	2% FIBROUS GLASS	5% CHRYSOTILE
1	Yes	Black Adhesive Mastic				
64108-2	2	5/1/2019	Circuit Court 2nd Fl.	30% METAL FOIL	30% CELLULOSE FIBER	None Detected
2	No	Beige & Grey Fibrous/Pliable Jacket		20% NON FIBROUS MATERIAL	20% FIBROUS GLASS	
Sample analyzed as individual layers.						
64108-2	2	5/1/2019	Circuit Court 2nd Fl.	2% NON FIBROUS MATERIAL	98% FIBROUS GLASS	None Detected
3	Yes	White Fibrous Insulation				
Sample analyzed as individual layers.						
64108-3	3	5/1/2019	Circuit Court 2nd Fl.	93% NON FIBROUS MATERIAL	2% CELLULOSE FIBER	5% CHRYSOTILE
1	Yes	Black Adhesive Mastic				

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Lab ID	Cust. ID	Sample Date	Sample Location		
Layer	Homogenous	Description		Non Fibrous	Non Asbestos Fibers / Asbestos Fibers

Natalie Ford

Analyst: Natalie Ford

NIST Signatory: Natalie Ford, Microscopist

Date Released: 5/2/2019

This Certificate of Analysis presents analytical data covered by this laboratory's accreditation under the National Voluntary Laboratory Accreditation Program (NVLAP). Detection, identification, and quantification of asbestos in certain building materials (e.g., floor tiles, caulk, asphalts, roofing materials) by PLM is difficult due to interfering matrix components. PLM technique has an estimated detection limit of 1% (v:v). Fibers smaller than 0.25 um cannot be detected; hence, correlative techniques should be considered for data verification. Non-detection of asbestos in certain materials should be verified by analytical electron microscopy techniques (refer to AHERA criteria). Quantifications are estimated by calibrated visual estimate, unless otherwise noted. The estimated measurement of uncertainty in PLM analysis is available upon request. The data reported herein relates only to those samples analyzed. Any information supplied by the Customer can affect the validity of results. Results apply to the sample as received. This report shall not be reproduced, except in full, without the written permission of senior managers of this laboratory. This report shall not be used to claim product endorsement by NVLAP or any agency of the U.S. Government.

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ASBESTOS FIELD INSPECTION FORM/CHAIN OF CUSTODY

ALS Project #: 12752 Project Name: Civic Center Project Location: Circuit Court

Date Sampled: 5/1/19 Results Due: Standard Inspector(s): T. Martin / T. Baker ALS Lims #: 64108

Sample #	Sample Description	Sample Location	Quantity	*Condition G/D/SD	Friable Y/N
1	duct work mastic	circuit court 2nd fl.		G	N
2	duct work mastic	"		G	N
3	duct work mastic	"		G	N

*Condition - (G) Good (D) Damaged (SD) Significantly Damaged

Special Instructions:

Released By:	Company	Date/Time	Received By:	Company	Date/Time
T. Martin	ALS	5/1/19	Cameron Hawkins	ALS	5/1/19
Released By:	Company	Date/Time	Received By:	Company	Date/Time